Ceiling Lamp Box

1965

High-Light

SURFACE • RECESSED • SQUARES • ROUNDS

miller

A. I. A. FILE NO. 31-F-2

contents

recessed square high-lights 4-6

recessed round high-lights 7-23

surface high-lights 24-25

cylindrical wall and ceiling units 26-27

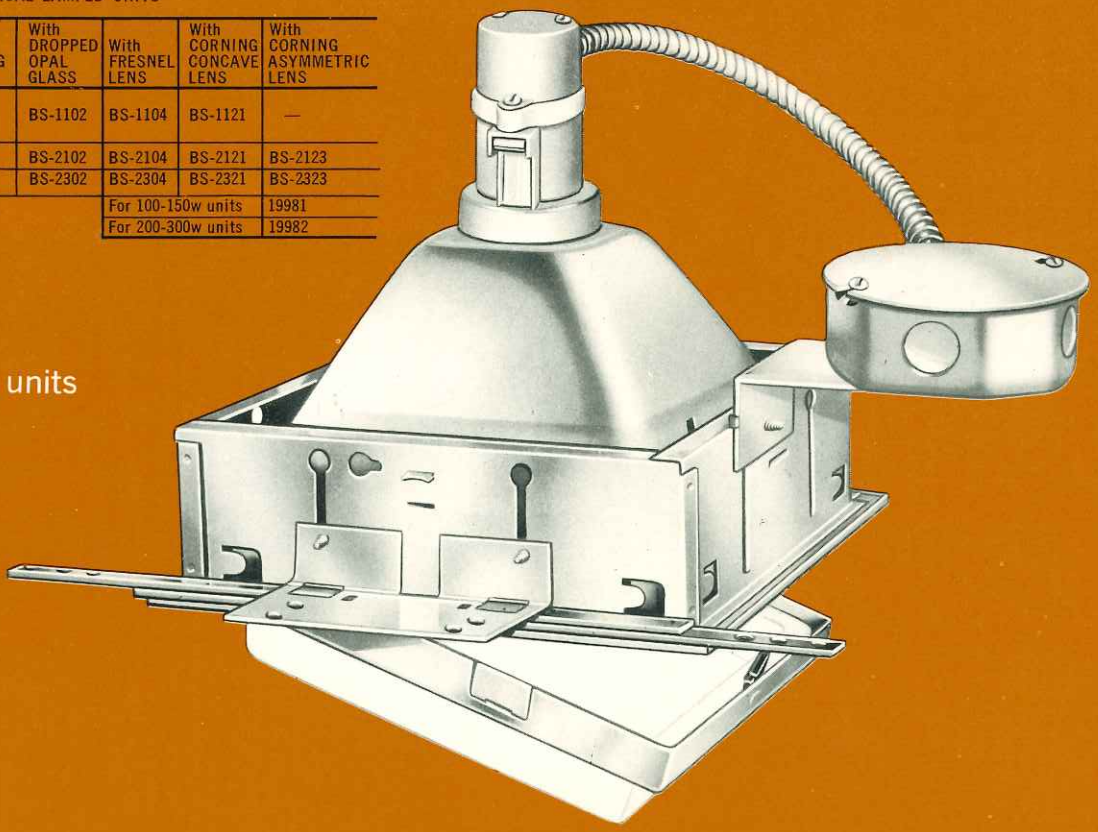
swivel accent high-lights 28-29

white glass decorative 30

VERTICAL LAMPED UNITS*

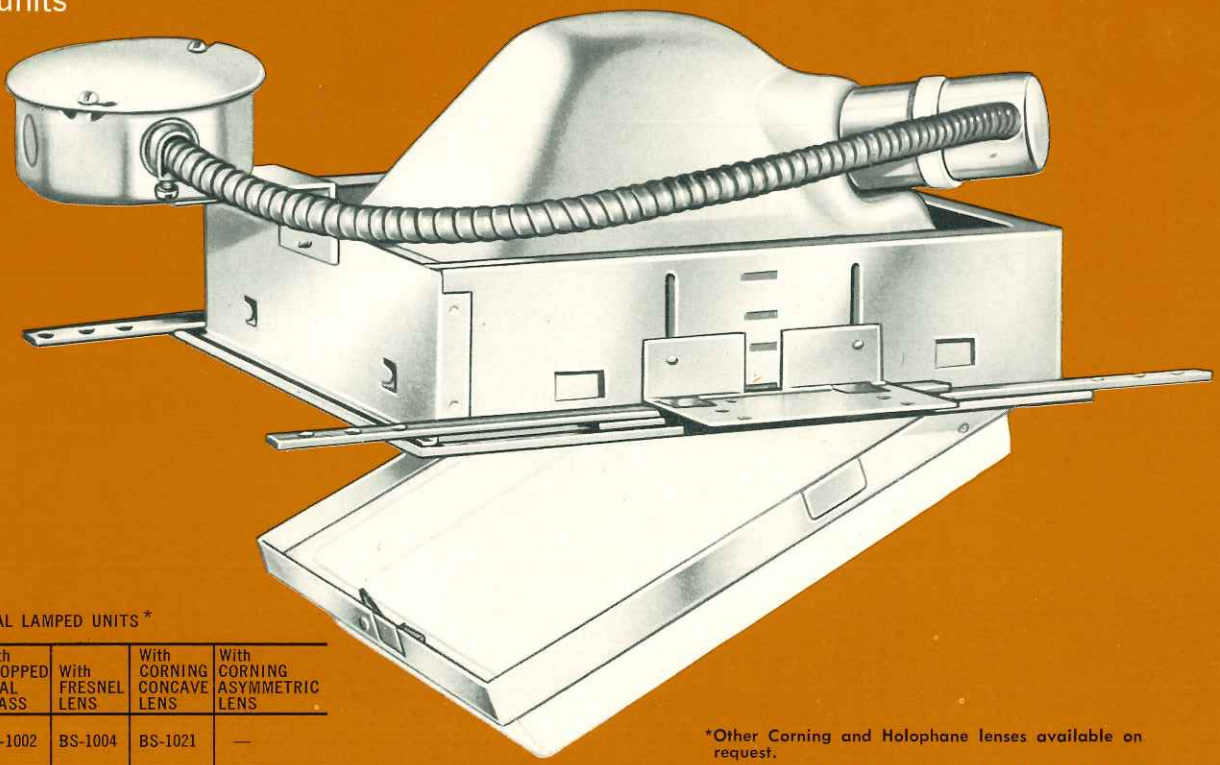
LAMP	For RELAMPING FROM	With DROPPED OPAL GLASS	With FRESNEL LENS	With CORNING CONCAVE LENS	With CORNING ASYMMETRIC LENS
100w A-21 or 150w A-23	Below	BS-1102	BS-1104	BS-1121	—
200w A-25, PS-25 or 300w PS-30	Below	BS-2102	BS-2104	BS-2121	BS-2123
	Above	BS-2302	BS-2304	BS-2321	BS-2323
Accessory Plaster Frame Rails			For 100-150w units		19981
			For 200-300w units		19982

vertical lamped units



recessed square high-lights

horizontal lamped units



HORIZONTAL LAMPED UNITS*

Lamp	For RELAMPING FROM	With DROPPED OPAL GLASS	With FRESNEL LENS	With CORNING CONCAVE LENS	With CORNING ASYMMETRIC LENS
100w A-21 or 150w A-23	Below	BS-1002	BS-1004	BS-1021	—
200w A-25, PS-25 or 300w PS-30	Below	BS-2002	BS-2004	BS-2021	BS-2023
	Above	BS-2202	BS-2204	BS-2221	BS-2223
Accessory Plaster Frame Rails			For 100-150w units		19981
			For 200-300w units		19982

*Other Corning and Holophane lenses available on request.

200-300w units with provision for 15w night light available on request.

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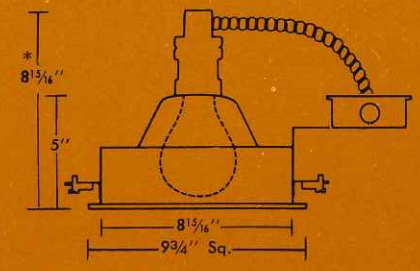
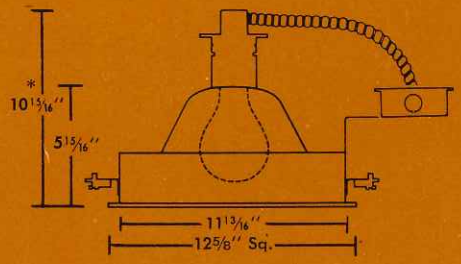




Specification Features

Recessed Square High-Lights are for use in all types of new or existing ceilings, and are available for relamping from above or below.

Aluminum Mounting Frame is designed to permit ready access to plenum both during and after installation; eliminates the need for a separate reflector housing.

Pre-wired Junction Box of 14 gauge steel connects to socket through flexible conduit and permits use of 60°C building wire. Accessible from above or below.

One-Piece Aluminum Reflector has upper surface exposed to plenum with socket mounted outside reflector in a zinc heat sink — a unique design feature that results in cool operation.

Die-cast Zinc Trim Frame has narrow, unobtrusive ceiling flange and provides for concealed hinging of door.

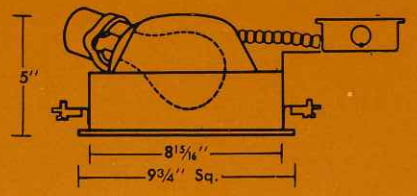
Door Frame is die-cast zinc with concealed jam-proof touch latch. Lenses are securely held in frame by spring clips. Doors are shipped with lenses in place.

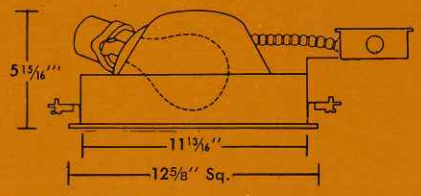
Components Unpack From Carton in Sequence Needed for installation on the job; non-corrosive construction throughout. Standard mounting hardware consists of two steel angle brackets and two 18" mounting bars. (28" mounting bars available on request).

Aluminum Plaster Frame Rails are available as accessory item; attach to mounting frame without tools or handling of loose hardware.

Finish: exposed trim and door frame baked-on white enamel (other optional finishes available) Reflector anodized; mounting frame and accessory plaster frame rails natural aluminum; steel brackets and hardware plated.

Labels: UL; AFL-IBEW

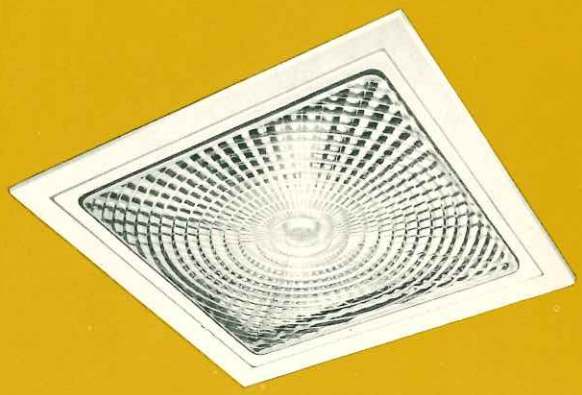




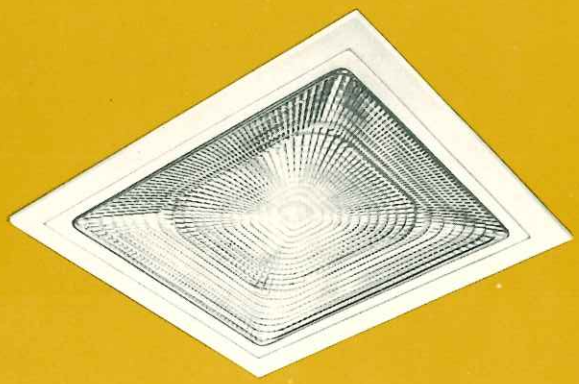
*Deduct ¾" for lower wattage lamps

DROPPED OPAL GLASS

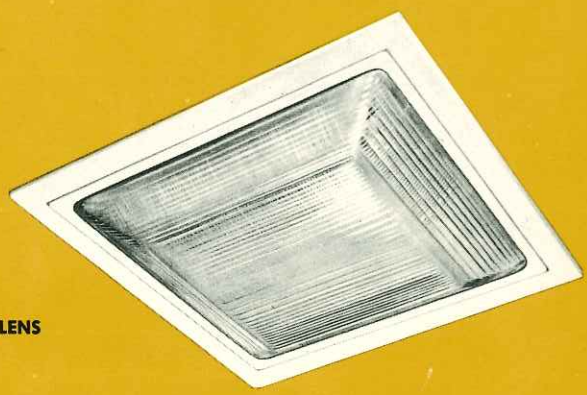
FRESNEL LENS



CORNING CONCAVE LENS



CORNING ASYMMETRIC LENS



performance data for recessed square high-lights

WITH DROPPED OPAL GLASS

		HORIZONTAL LAMPING†					
		100-150W			200-300W		
% Floor Reflectance		10*			10*		
% Ceiling Reflectance		50-80			50-80		
% Wall Reflectance		50	30	10	50	30	10
Room Ratio	Room Index	COEFFICIENTS OF UTILIZATION					
0.6	J	.17	.14	.11	.23	.20	.17
0.8	I	.21	.18	.15	.29	.25	.22
1.0	H	.25	.21	.19	.33	.29	.26
1.25	G	.28	.25	.22	.37	.33	.30
1.5	F	.30	.27	.25	.40	.36	.33
2.0	E	.34	.31	.29	.43	.40	.37
2.5	D	.36	.33	.31	.46	.43	.40
3.0	C	.38	.35	.33	.48	.45	.43
4.0	B	.40	.38	.36	.50	.48	.46
5.0	A	.41	.40	.38	.51	.50	.48

*For 30% floor reflectance see page 31

†For vertical lamping, multiply by:
.90 for 100-150W units
.81 for 200-300W units
Spacing not to exceed 1.35 x vertical distance below 100-150W horizontal lamped units
Spacing not to exceed 1.25 x vertical distance below 200-300W horizontal lamped units
Spacing not to exceed 1.30 x vertical distance below 100-150W vertical lamped units
Spacing not to exceed 1.20 x vertical distance below 200-300W vertical lamped units

WITH FRESNEL LENS

		HORIZONTAL LAMPING†					
		100-150W			200-300W		
% Floor Reflectance		10*			10*		
% Ceiling Reflectance		50-80			50-80		
% Wall Reflectance		50	30	10	50	30	10
Room Ratio	Room Index	COEFFICIENTS OF UTILIZATION					
0.6	J	.34	.30	.26	.46	.42	.39
0.8	I	.40	.36	.33	.52	.49	.46
1.0	H	.45	.41	.38	.57	.53	.51
1.25	G	.49	.45	.42	.60	.57	.54
1.5	F	.52	.49	.45	.63	.60	.57
2.0	E	.56	.53	.50	.66	.64	.61
2.5	D	.58	.55	.53	.68	.66	.64
3.0	C	.60	.57	.55	.70	.68	.66
4.0	B	.61	.60	.58	.72	.70	.68
5.0	A	.63	.61	.60	.72	.71	.70

*For 30% floor reflectance see page 31

†For vertical lamping, multiply by:
.98 for 100W units
.95 for 150 & 300W units
.83 for 200W units
Spacing not to exceed 1.15 x vertical distance below 100-150W horizontal lamped units
Spacing not to exceed 1.25 x vertical distance below 200-300W horizontal lamped units
Spacing not to exceed 1.4 x vertical distance below 100-150W vertical lamped units
Spacing not to exceed 1.1 x vertical distance below 200-300W vertical lamped units

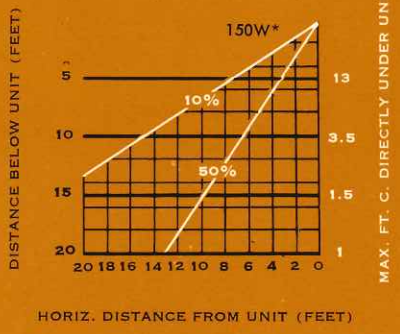
WITH CORNING CONCAVE LENS

		HORIZONTAL LAMPING†					
		100-150W			200-300W		
% Floor Reflectance		10*			10*		
% Ceiling Reflectance		50-80			50-80		
% Wall Reflectance		50	30	10	50	30	10
Room Ratio	Room Index	COEFFICIENTS OF UTILIZATION					
0.6	J	.30	.25	.22	.41	.37	.34
0.8	I	.36	.31	.28	.49	.45	.42
1.0	H	.40	.36	.33	.53	.50	.47
1.25	G	.45	.41	.37	.58	.54	.51
1.5	F	.48	.44	.40	.61	.57	.54
2.0	E	.51	.48	.45	.64	.61	.59
2.5	D	.54	.51	.48	.67	.64	.61
3.0	C	.56	.53	.50	.68	.66	.64
4.0	B	.58	.56	.53	.70	.68	.66
5.0	A	.59	.57	.56	.71	.69	.68

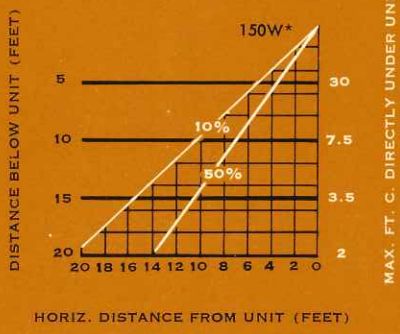
*For 30% floor reflectance see page 31

†For vertical lamping, multiply by:
.96 for 100-150W units
.89 for 200W units
.81 for 300W units
Spacing not to exceed 1.25 x vertical distance below horizontal lamped units
Spacing not to exceed 1.4 x vertical distance below 100-150W vertical lamped units
Spacing not to exceed 1.15 x vertical distance below 200-300W vertical lamped units

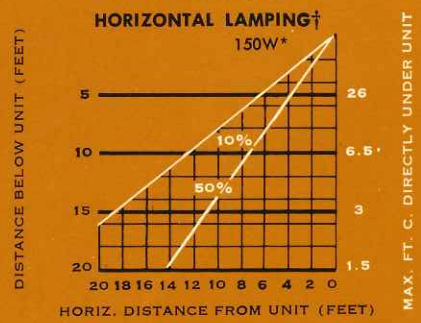
HORIZONTAL LAMPING†

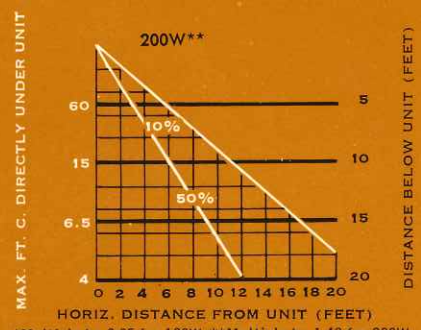


HORIZONTAL LAMPING†

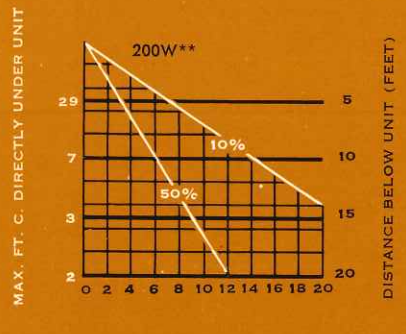


HORIZONTAL LAMPING†

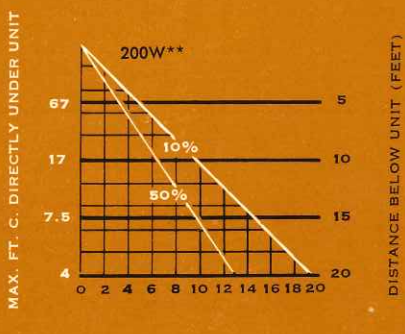




*Multiply by 0.65 for 100W **Multiply by 1.40 for 300W

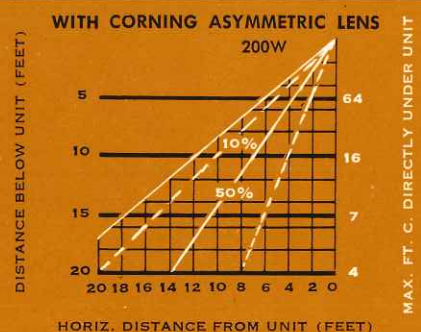


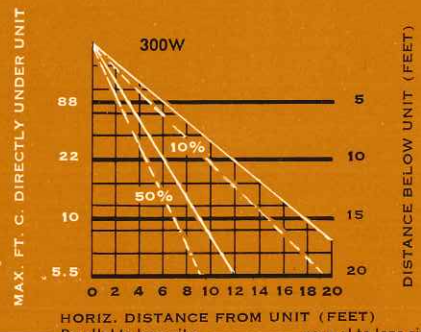
*Multiply by 0.6 for 100W
**Multiply by 1.45 for 300W



*Multiply by 0.67 for 100W
**Multiply by 1.38 for 300W

WITH CORNING ASYMMETRIC LENS





†Data for vertical lamping available on request

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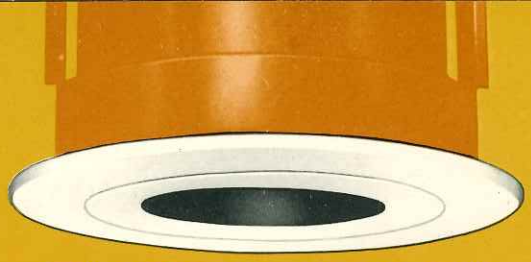


APERTURED ACCENT LIGHTS FOR PAR AND R SPOT LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Dimensions C Aperture Dia.	Catalog Number
Universal	75	R-30 or PAR-38 Spot	5⅛″	7¾″	3½″	BN-2010
	150	R-40 or PAR-38 Spot	5⅛″	9¼″	3½″	BN-2110
Furring	75	R-30 or PAR-38 Spot	5⅛″	7¾″	3½″	BN-2030
	150	R-40 or PAR-38 Spot	5⅛″	9¼″	3½″	BN-2130

OPEN UNITS FOR PAR AND R SPOT OR FLOOD LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Dimensions C Aperture Dia.	Catalog Number
Universal	75-150	R-30, R-40, PAR-38	5⅛″	7¾″	5″	BN-1010
Furring	75-150	R-30, R-40, PAR-38	5⅛″	7¾″	5″	BN-1030
					Accessory Louver	BK-31

Specification Features

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below.

Wired Yoke Assembly facilitates simple wiring connections to yoke and assures neat installed appearance without light leaks — *exclusive pull-up feature described on page 22.* Assembly includes porcelain socket, 4½′ of #14 AF wire, and connector for ½″ flexible conduit.

Steel Trim Flange fits snugly against ceiling without visible screws; snap-locks to *cylindrical steel housing.*

Removable Steel Aperture Plate is furnished with apertured accent lights only. It provides 30° shielding below horizontal without light leaks; snaps into trim flange.

Mounting Assemblies

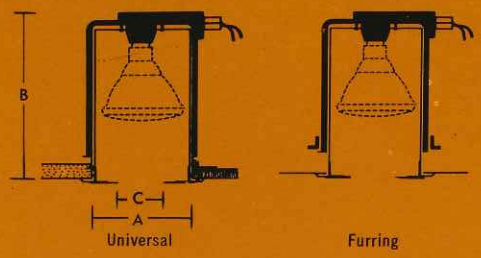
Universal Mounting: Ceiling Ring Assembly (described on page 22)

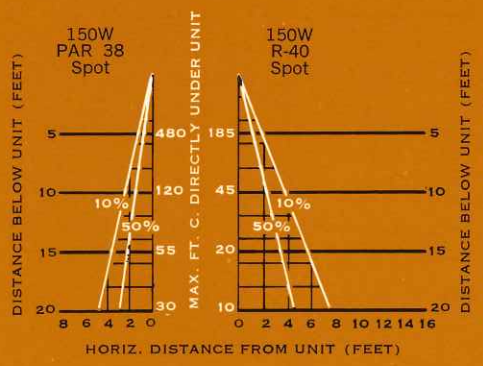
Furring Mounting: Bridge-Mounting Assembly (described on page 23)

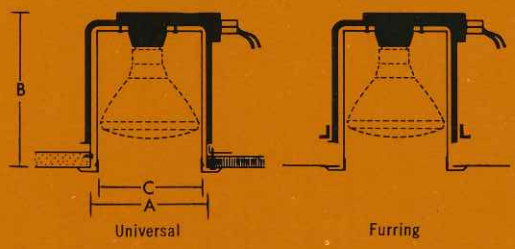
Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surfaces of trim flange and aperture plate bone white; all other parts matte black.

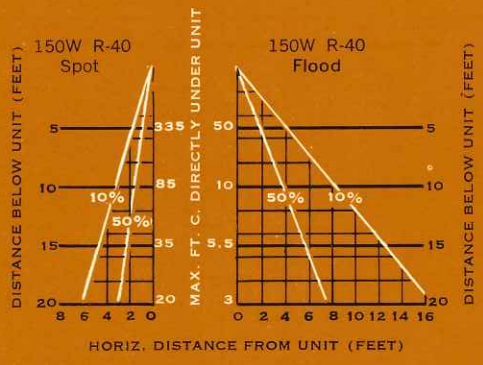
Labels: UL; AFL-IBEW

Accessory Louver for open units only provides 45° shielding. Concentric ring assembly of die-cast zinc with low brightness, matte grey baked-on enamel finish.





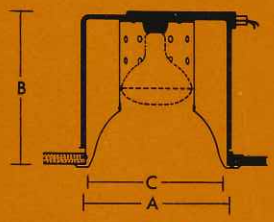




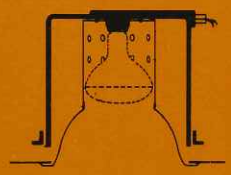
basic non-reflectored downlights

DOME UNITS FOR REFLECTOR SPOT OR FLOOD LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Dimensions C Aperture Dia.	Catalog Number
Universal	75-300	R-30, R-40, PAR-38	10¼"	11"	—	BN-3010
	300-500	R-40	10¼"	12¾"	—	BN-3110
Furring	75-300	R-30, R-40, PAR-38	10¼"	11"	—	BN-3030
	300-500	R-40	10¼"	12¾"	—	BN-3130



Universal


Furring

Specification Features

Dome units are for recessing in all types of new or existing ceilings and may be relamped from above or below.

Wired Yoke Assembly facilitates simple wiring connections to yoke and assures neat installed appearance — *exclusive pull-up feature described on page 22.* Assembly includes porcelain socket, 4½′ of #14 AF wire, and connector for ½" flexible conduit.

Housing has ventilated, cylindrical upper section. Lower dome is spun aluminum and acts as controlled brightness lamp shield; edge serves as trim flange.

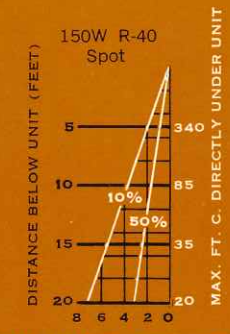
Mounting Assemblies

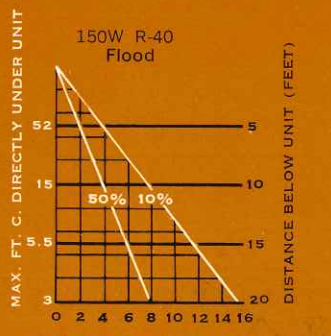
Universal Mounting: Ceiling Ring Assembly (described on page 22)

Furring Mounting: Bridge-Mounting Assembly (described on page 23)

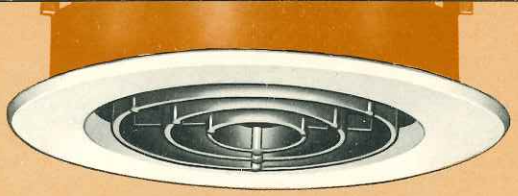
Finish: all steel parts anti-rust treated with phosphatizing process and sprayed matte black baked-on enamel. Exposed surface of housing dome sprayed matte baked-on enamel. 75-300w size white; 500w size black.

Labels: UL; AFL-IBEW





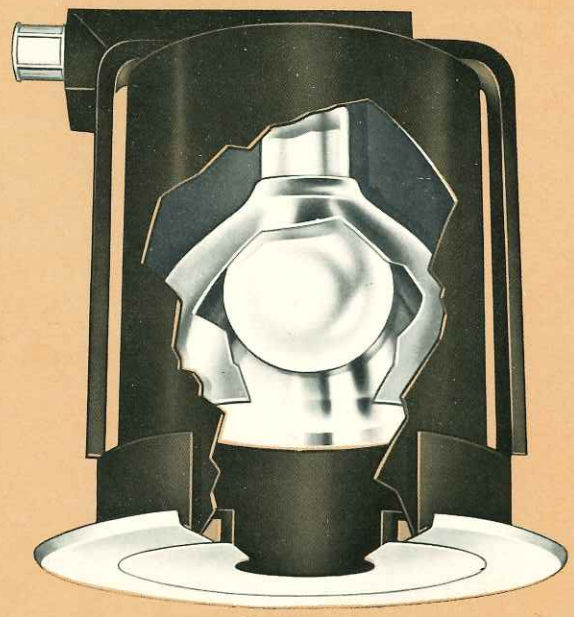
basic non-reflectored downlights



LOUVERED UNITS

Mounting	Wattage	Lamp Type*	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	Catalog Number
Universal	100	A-21, I.F.	5⅛″	7¾″	5″	BA-1010
Furring	100	A-21, I.F.	5⅛″	7¾″	5″	BA-1030

*A-19 may be used with socket extender.



PINHOLE UNITS

Mounting	Wattage	Lamp Type*	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	Catalog Number
Universal	100	A-21, I.F.	5⅛″	7¾″	2″	BA-1110
Furring	100	A-21, I.F.	5⅛″	7¾″	2″	BA-1130

*A-19 may be used with socket extender.

Specification Features

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below.

Wired Yoke Assembly facilitates simple wiring connections to yoke and assures neat installed appearance without light leaks — *exclusive pull-up feature described on page 22.* Assembly includes porcelain socket, 4½′ of #14 AF wire, and connector for ½″ flexible conduit.

Alzak Aluminum Reflector is ellipsoidal with specular finish. It is supported by tabs in housing; does not rest on lamps.

Steel Trim Flange fits snugly against ceiling without visible screws; snap-locks to *cylindrical steel housing.*

Removable Steel Aperture Plate is furnished with pinhole units only. It provides 60° shielding below horizontal without light leaks; snaps into trim flange.

Removable Louver is furnished with louvered units only. It provides 45° shielding. Concentric ring assembly of die-cast zinc with low brightness, matte grey baked-on enamel finish.

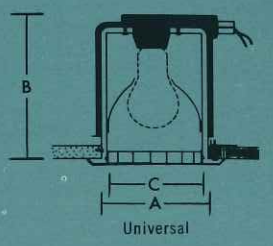
Mounting Assemblies

Universal Mounting: Ceiling Ring Assembly (described on page 22)

Furring Mounting: Bridge-mounting Assembly (described on page 23)

Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surfaces of trim flange and aperture plate bone white; all other parts matte black.

Labels: UL; AFL-IBEW



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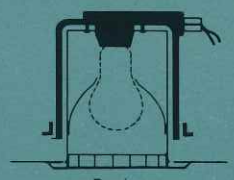

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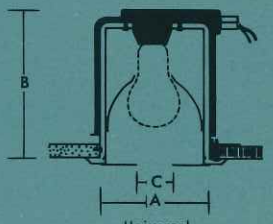

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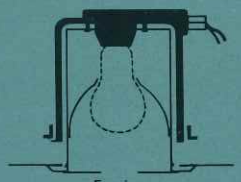
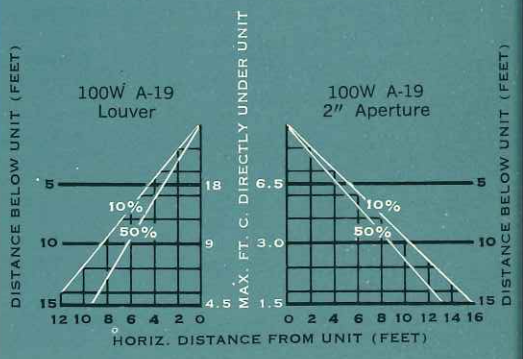


Furring



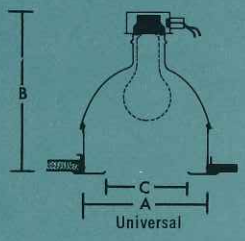
alzak reflectored units

OPEN UNITS FOR GENERAL SERVICE LAMPS

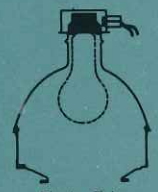
Mounting	Wattage	Lamp Type*	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	Catalog Number
Universal	100	A-21, I.F.	10¼″	10¼″	5¼″	BA-2010
	150	A-23, I.F.	10¼″	11″	5¼″	BA-2110
	200-300	PS-30, I.F.	10¼″	13″	6″	BA-2210
Universal Sloped	100	A-21, I.F.	10¼″	10¼″	5¼″	BA-2011
	150	A-23, I.F.	10¼″	11″	5¼″	BA-2111
	200-300	PS-30, I.F.	10¼″	13″	6″	BA-2211
Plaster Trim	100	A-21, I.F.	9¾″	10¼″	5¼″	BA-2020
	150	A-23, I.F.	9¾″	11″	5¼″	BA-2120
	200-300	PS-30, I.F.	9¾″	13″	6″	BA-2220
Plaster Trim Sloped	100	A-21, I.F.	8½″	10¼″	5¼″	BA-2021
	150	A-23, I.F.	8½″	11″	5¼″	BA-2121
	200-300	PS-30, I.F.	8½″	13″	6″	BA-2221
Furring (No Trim)	100	A-21, I.F.	5⅜″	10¼″	5¼″	BA-2030
	150	A-23, I.F.	5⅜″	11″	5¼″	BA-2130
	200-300	PS-30, I.F.	6⅛″	13″	6″	BA-2230
Optional Trim Flange for Furring Mounting Units				(100 & 150w) (200 & 300w)		BK-70 BK-71

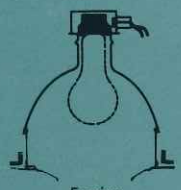
*100w A-19 or 150w A-21 may be used with socket extender.

NO TRIM (BA-2030)



Universal


Plaster Trim


Furring

% Floor Reflectance		10*	
% Ceiling Reflectance		50-80	
% Wall Reflectance		50	10
Room Ratio	Room Index	Coefficients of Utilization	
0.6	J	.36	.34
0.8	I	.39	.36
1.0	H	.41	.39
1.25	G	.42	.40
1.5	F	.43	.41
2.0	E	.44	.42
2.5	D	.45	.43
3.0	C	.46	.44
4.0	B	.46	.45
5.0	A	.47	.46

*For 30% Floor Reflectance see page 31.

Spacing not to exceed .8 x Vertical Distance Below Unit

Specification Features

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below. Provide 45° shielding.

Socket-Outlet Box Assembly attaches to reflector by keyhole slots. Assembly includes 4½′ of #14 AF wire, and connector for ½″ flexible conduit.

Alzak Aluminum Reflector is ellipsoidal with specular finish and directs light through aperture. Attached to shielding collar by three screws.

Shielding Collar

Universal Mounting: a spot welded assembly consisting of cylindrical steel shielding collar, steel aperture plate with trim flange, and mounting ring. Attaches to ceiling ring with bayonet slots.

All Other Mounting Types: a steel cylinder which tab locks to appropriate mounting assembly.

Mounting Assemblies

Universal Mounting: Ceiling Ring Assembly (described on page 22)

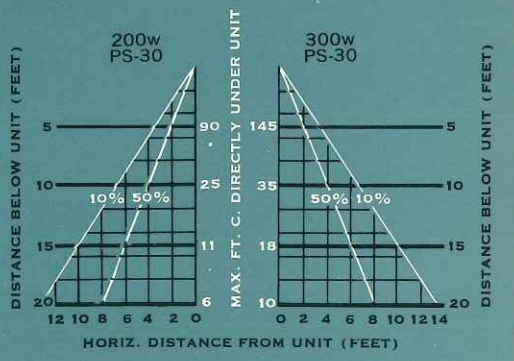
Plaster Trim Mounting: Aperture Trim Assembly (described on page 22)

Furring Mounting: Bridge-Mounting Assembly (described on page 23)

Universal Sloped: / Plaster Trim Sloped: } Sloped Ceiling Assembly (described on page 22)

Finish: all unplated steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surface of aperture plate bone white; all other parts matte black.

Labels: UL; AFL-IBEW



alzak reflectored units

OPEN UNITS FOR R-40 SPOT OR FLOOD LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	Catalog Number
Universal	300-500	R-40	10⅛″	15″	6″	BA-3010
Universal Sloped	300-500	R-40	10⅛″	15″	6″	BA-3011
Plaster Trim	300-500	R-40	8½″	15½″	6″	BA-3020
Plaster Trim Sloped	300-500	R-40	8½″	15½″	6″	BA-3021
Furring (No Trim)	300-500	R-40	6⅛″	15½″	6″	BA-3030
Optional Trim Flange for Furring Mounting Unit						BK-71

NO TRIM (BA-3030)

Specification Features

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below. Provide 50° shielding below horizontal. *Housing* is a ventilated steel cylinder; has three spring retainers which securely support *Alzak aluminum reflector*. Reflector is ellipsoidal with specular finish. Porcelain socket, and 4″ outlet box with connector for ½″ flexible conduit attach to top of housing. Socket is wired with 4½′ leads of #14 200°C silicone wire.

Aperture Assembly

Universal Mounting: steel trim flange and internal mounting ring with bayonet slots which attach to ceiling ring. Design assures tight seating of flange to ceiling with no light leaks.

All Other Types: spun aluminum ring tab-locks to housing.

Mounting Assemblies

Universal Mounting: Ceiling Ring Assembly (described on page 22)

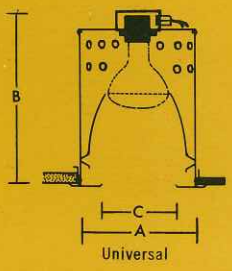
Plaster Trim Mounting: Aperture Trim Assembly (described on page 22)

Furring Mounting: Bridge-Mounting Assembly (described on page 23)

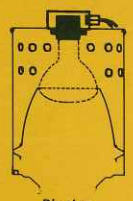
Universal Sloped: / Plaster Trim Sloped: } Sloped Ceiling Assembly (described on page 22)

Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surfaces of aperture assemblies bone white; all other parts matte black.

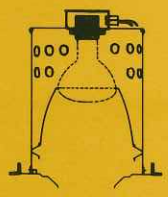
Labels: UL; AFL-IBEW



Universal



Plaster Trim

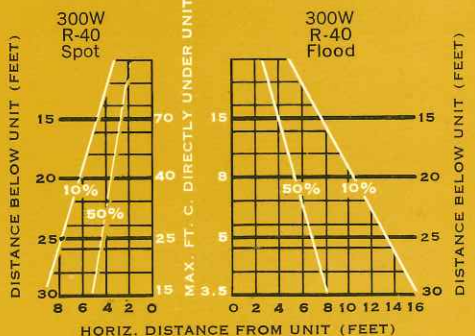


Furring

Room Ratio	Room Index	300 & 500w R-40 SPOT 10% Floor Reflectance, 50-80 % Ceiling Reflectance, 50 % Wall Reflectance	300 & 500w R-40 SPOT 10% Floor Reflectance, 50-80 % Ceiling Reflectance, 10 % Wall Reflectance	300 & 500w R-40 FLOOD 10% Floor Reflectance, 50-80 % Ceiling Reflectance, 50 % Wall Reflectance	300 & 500w R-40 FLOOD 10% Floor Reflectance, 50-80 % Ceiling Reflectance, 10 % Wall Reflectance
		Coefficients of Utilization			
0.6	J	.57	.54	.32	.30
0.8	I	.59	.57	.35	.33
1.0	H	.61	.58	.36	.34
1.25	G	.62	.60	.37	.35
1.5	F	.63	.61	.38	.36
2.0	E	.65	.62	.39	.37
2.5	D	.65	.63	.39	.38
3.0	C	.66	.64	.40	.39
4.0	B	.68	.65	.41	.39
5.0	A	.68	.66	.41	.40

*For 30% Floor Reflectance see page 31.

Spacing not to exceed .4 for Spot and .6 for Flood Lamps x Vertical Distance Below Unit.



For 500 W R-40 multiply footcandles by 1.75

alzak reflectored units

OPEN UNITS FOR PAR AND R FLOOD LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	Catalog Number
Universal	150	PAR-38 Flood	10¼″	12″	7″	BA-4010
	150-300	R-40 Flood	10¼″	12½″	8″	BA-4110
	300-500	R-40 Flood	10¼″	14″	8″	BA-4210
Universal Sloped	150	PAR-38 Flood	10¼″	12″	7″	BA-4011
	150-300	R-40 Flood	10¼″	12½″	8″	BA-4111
	300-500	R-40 Flood	10¼″	14″	8″	BA-4211
Plaster Trim	150	PAR-38 Flood	9¾″	11¾″	7″	BA-4020
	150-300	R-40 Flood	9¾″	12¼″	8″	BA-4120
	300-500	R-40 Flood	9¾″	14¼″	8″	BA-4220
Plaster Trim Sloped	150	PAR-38 Flood	8½″	11¾″	7″	BA-4021
	150-300	R-40 Flood	8½″	12¼″	8″	BA-4121
	300-500	R-40 Flood	8½″	14¼″	8″	BA-4221
Furring (No Trim)	150	PAR-38 Flood	7⅛″	11¾″	7″	BA-4030
	150-300	R-40 Flood	8⅛″	12¼″	8″	BA-4130
	300-500	R-40 Flood	8⅛″	14¼″	8″	BA-4230

NO TRIM (BA-4030)

Specification Features

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below. Provide 45° shielding.

Housing is a ventilated steel cylinder; has two coil springs which securely support *Alzak aluminum reflector;* top is removable.

Universal Mounting: *Wired Yoke Assembly* facilitates simple wiring connections to yoke and assures neat installed appearance without light leaks — *exclusive pull-up feature described on page 22.*

Assembly includes porcelain socket, 4½′ of #14 AF wire, and connector for ½″ flexible conduit.

All Other Mounting Types: wired socket mounted to inside of housing top; leads pass through connector installed in side of housing.

Aperture Assembly

Universal Mounting: steel trim flange and internal mounting ring with bayonet slots attach to ceiling ring. Design assures tight seating of flange to ceiling with no light leaks.

All Other Mounting Types: spun aluminum ring which is tab-locked to housing.

Mounting Assemblies

Universal Mounting: Ceiling Ring Assembly (described on page 22)

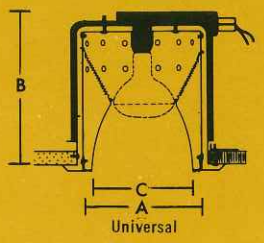
Plaster Trim Mounting: Aperture Trim Assembly (described on page 22)

Furring Mounting: Bridge-Mounting Assembly (described on page 23)

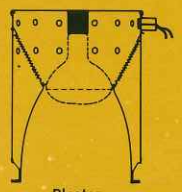
Universal Sloped: } Sloped Ceiling Assembly (described on page 22)
Plaster Trim Sloped: }

Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surfaces of trim flange and aperture ring exterior bone white; all other parts matte black.

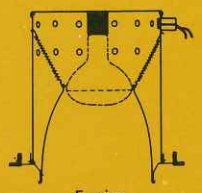
Labels: UL; AFL-IBEW



Universal



Plaster Trim



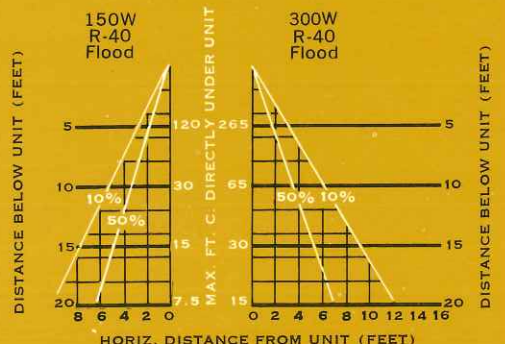
Furring

Room Ratio	Room Index	R-40 FLOOD 150w†		300w	
% Floor Reflectance		10*		10*	
% Ceiling Reflectance		50-80		50-80	
% Wall Reflectance		50	10	50	10
		Coefficients of Utilization			
0.6	J	.55	.51	.68	.63
0.8	I	.59	.55	.73	.68
1.0	H	.61	.57	.74	.70
1.25	G	.63	.60	.78	.74
1.5	F	.65	.61	.80	.75
2.0	E	.67	.63	.83	.79
2.5	D	.68	.65	.84	.81
3.0	C	.69	.66	.85	.82
4.0	B	.70	.68	.86	.84
5.0	A	.70	.68	.87	.85

*For 30% Floor Reflectance see page 31.

Spacing not to exceed .6 for R-40 and .4 for PAR-38 Lamps x Vertical Distance Below Unit.

†For 150w PAR-38 Flood Lamp multiply by 1.36.

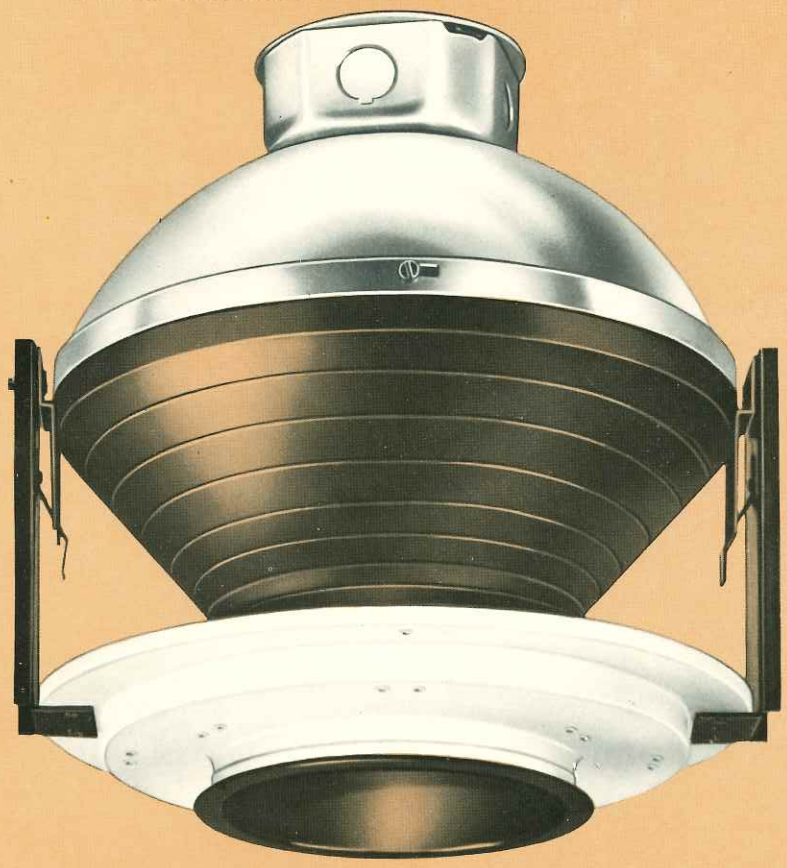


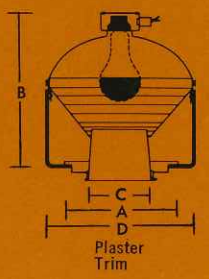
alzak reflectored units

ALZAK REFLECTORED UNITS* FOR SILVER BOWL LAMPS

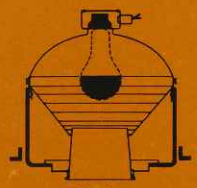
Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	D Width	Catalog Number
Plaster Trim	100	A-21, SBIF	5⅜″	12″	5″	11″	BV-4020
	150	PS-25, SBIF	6 3/16″	15¾″	5⅞″	15″	BV-4120
	200	PS-30, SBIF	6 3/16″	16½″	5⅞″	15″	BV-4220
	300	PS-35, MS/SBIF	7¼″	19″	6⅞″	17″	BV-4320
Furring	100	A-21, SBIF	5⅜″	12″	5″	11″	BV-4030
	150	PS-25, SBIF	6 3/16″	15¾″	5⅞″	15″	BV-4130
	200	PS-30, SBIF	6 3/16″	16½″	5⅞″	15″	BV-4230
	300	PS-35, MS/SBIF	7¼″	19″	6⅞″	17″	BV-4330

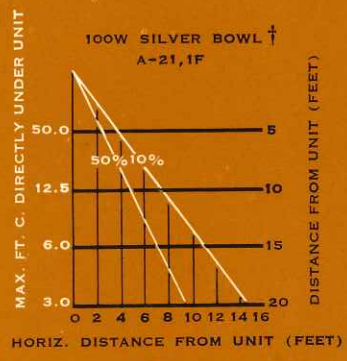
*For units with flanged aperture cones. Also available with flangeless cones on request.





Plaster Trim


Furring



†Multiply footcandles by:
1.6 for 150 W lamp
2.3 for 200 W lamp
3.6 for 300 W lamp

Specification Features

Units are for recessing in all types of new ceilings and may be relamped from above or below; feature exceptionally low brightness with complete shielding of lamp.

Steel Yoke is mounted on reinforced *aluminum ceiling pan* and provides pivot support for reflector assembly. Finger latches on yoke arms secure reflector assembly in operating position; release assembly on pivot for electrical service from below. Latches accessible through ceiling opening.

Reflector Assembly consists of a *spun aluminum reflector* with specular Alzak finish and attached lower housing of fluted steel. Porcelain socket in 4″ outlet box is attached to reflector top; socket is wired with 4½′ leads of #14 AF wire. Connector for ½″ flexible conduit installed on outlet box.

Aperture Cone is spun aluminum with black anodized finish; tapered upper portion extends into lower housing. Cone is supported by ceiling pan and held tightly against ceiling by concealed spring clips. Narrow ⅜″ ceiling flange is standard.

Mounting Assemblies

Furring Mounting: Bridge-Mounting Assembly (described on page 23)

Finish: all unplated steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel, matte black. Aluminum ceiling pan bone white enamel.

Labels: UL; AFL-IBEW

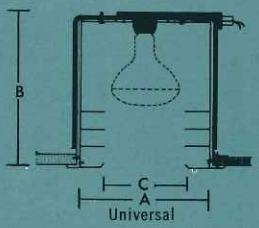
% Floor Reflectance		10*		10*	
% Ceiling Reflectance		80		50	
% Wall Reflectance		50	10	50	10
Room Ratio	Room Index	Coefficients of Utilization			
0.6	J	.47	.43	.46	.43
0.8	I	.51	.48	.50	.47
1.0	H	.53	.50	.52	.50
1.25	G	.56	.53	.55	.52
1.5	F	.58	.55	.56	.54
2.0	E	.59	.56	.58	.55
2.5	D	.60	.58	.58	.57
3.0	C	.61	.60	.59	.58
4.0	B	.63	.60	.60	.59
5.0	A	.64	.61	.61	.60

*For 30% Floor Reflectance see page 31.

alzak reflectored units

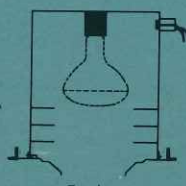
for silver bowl lamps

baffled downlights



Universal

Plaster Trim


Furring

NON-REFLECTORED UNITS FOR PAR AND R LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Dimensions C Aperture Dia.	Catalog Number
Universal	150 300	PAR-38 or R-40 R-40	10¼″ 10¼″	11″ 12″	5¼″ 6″	BC-1010 BC-1110
Universal Sloped	150 300	PAR-38 or R-40 R-40	10¼″ 10¼″	11″ 12″	5¼″ 6″	BC-1011 BC-1111
Plaster Trim	150 300	PAR-38 or R-40 R-40	9¾″ 9¾″	10¼″ 12″	5¼″ 6″	BC-1020 BC-1120
Plaster Trim Sloped	150 300	PAR-38 or R-40 R-40	8½″ 8½″	10¼″ 12″	5¼″ 6″	BC-1021 BC-1121
Furring (No Trim)	150 300	PAR-38 or R-40 R-40	5⅜″ 6⅛″	10¼″ 12″	5¼″ 6″	BC-1030 BC-1130
Optional Trim Flange for Furring Mounting Units					(150w) (300w)	BK-70 BK-71

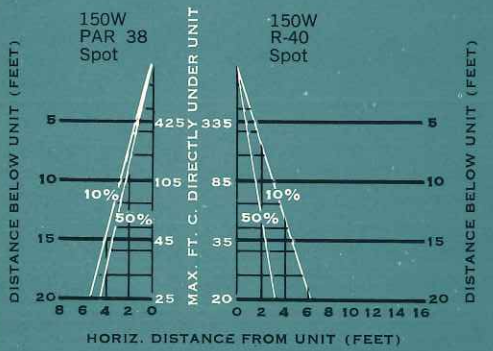
NO TRIM
(BC-1030)

	150W Lamps‡			
	R-40 Spot		PAR-38 Flood	
% Floor Reflectance	10*		10*	
% Ceiling Reflectance	50-80		50-80	
% Wall Reflectance	50	10	50	10
Room Ratio / Room Index	COEFFICIENTS OF UTILIZATION			
0.6 J	.49	.47	.51	.49
0.8 I	.50	.48	.53	.50
1.0 H	.51	.50	.54	.51
1.25 G	.53	.51	.55	.53
1.5 F	.54	.52	.56	.54
2.0 E	.55	.53	.57	.55
2.5 D	.55	.54	.58	.56
3.0 C	.56	.54	.58	.57
4.0 B	.56	.55	.59	.57
5.0 A	.57	.56	.59	.58

*For 30% Floor Reflectance see page 31.
‡For other lamps multiply appropriate CU's as follows:

	Spot	Flood
75W R-40	.73	.38
150W R-40	1.00	.40
300W R-40	.98	.50
150W PAR-38	1.42	1.00

Spacing not to exceed .3 for spots and .6 for floods x vertical distance below units.



Specification Features

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below.

Housing is a steel cylinder with three securely held annular baffles which provide 45° shielding.

Universal Mounting: *Wired Yoke Assembly* facilitates simple wiring connections to yoke and assures neat installed appearance without light leaks—*exclusive pull-up feature described on page 22.* Assembly includes porcelain socket, 4½′ #14 AF wire, and connector for ½″ flexible conduit.

All Other Mounting Types: wired socket mounted to inside of housing top; leads pass through connector installed in housing.

Aperture Assembly

Universal Mounting: steel trim flange and internal mounting ring with bayonet slots attach to ceiling ring. Design assures tight seating of flange to ceiling without light leaks.

All Other Types: spun aluminum ring which is tab-locked to housing.

Mounting Assemblies

Universal Mounting: Ceiling Ring Assembly (described on page 22)
Plaster Trim Mounting: Aperture Trim Assembly (described on page 22)
Furring Mounting: Bridge-Mounting Assembly (described on page 23)
Universal Sloped, Plaster Trim Sloped: Sloped Ceiling Assembly (described on page 22)

Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Baffle tops and exterior surfaces of aperture assemblies bone white; all other parts matte black.

Labels: UL; AFL-IBEW

NON-REFLECTORED UNITS FOR PAR AND R LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	Catalog Number
Plaster Trim Sloped (15° Max.)	200	PAR-46	8½″	12½″-13¾″	5¼″	BC-3021
	300	PAR-56	8½″	12½″-13¾″	6″	BC-3121
Plaster Trim Sloped (15° Max.)	300-500	R-40	8½″	12½″-13¾″	6″	BC-3221

Specification Features

Units are for recessing in plaster ceilings with slopes up to 15° and may be relamped from above.

Housing is a ventilated steel cylinder with three securely held annular baffles which provide 45° shielding. Porcelain socket is attached to top of housing and is wired with 4½′ leads of asbestos covered wire; leads pass through connector for ½″ flexible conduit installed in housing. Two adjustment screws for aperture assembly are attached to housing.

Aperture Assembly consists of spun aluminum plate with narrow trim flange and aluminum sides. Assembly hinges from one side of housing and connects to other side by adjustment screws. Aperture plate adjustment range is 0°-15° below horizontal with housing in level position.

Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Baffle tops and exposed surfaces of aperture assemblies bone white; all other parts matte black. *Labels:* UL; AFL-IBEW

NO TRIM (BC-2030)

Specification Features

Units are for recessing in suspended acoustical and plaster ceilings and may be relamped from above or below.

Socket-Outlet Box Assembly includes 4½′ of #14 AF wire and connector for ½″ flexible conduit. Attaches to reflector by key-hole slots.

Alzak Aluminum Reflector is ellipsoidal with specular finish and ventilating slots in neck. Directs light through aperture. Attaches to housing.

Housing is a steel cylinder with four securely held annular baffles.

Aperture Assembly is a spun aluminum ring which tab-locks to housing.

Mounting Assemblies

Plaster Trim Mounting: Aperture Trim Assembly (described on page 22)

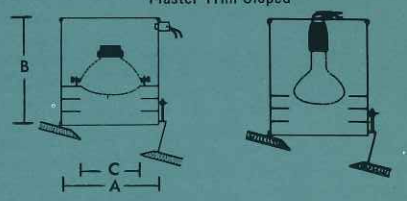
Plaster Trim Sloped: Sloped Ceiling Assembly (described on page 22)

Furring Mounting: Bridge-Mounting Assembly (described on page 23)

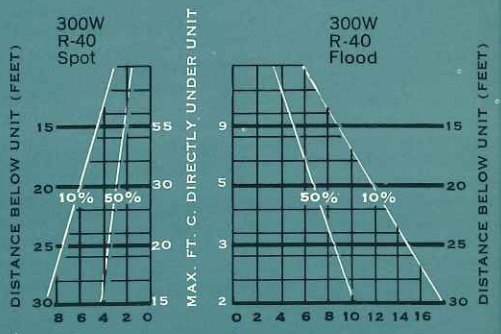
ALZAK REFLECTORED UNITS FOR GENERAL SERVICE LAMPS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	C Aperture Dia.	Catalog Number
Plaster Trim	500	PS-35,PS-40,I.F.	14½″	20″	7¾″	BC-2020
	750	PS-52, I.F.	16½″	23″	7¾″	BC-2120
Plaster Trim Sloped	500	PS-35,PS-40,I.F.	9″	20″	7¾″	BC-2021
	750	PS-52, I.F.	9″	23″	7¾″	BC-2121
Furring (No Trim)	500	PS-35,PS-40,I.F.	7⅞″	20″	7¾″	BC-2030
	750	PS-52, I F	7⅞″	23″	7¾″	BC-2130

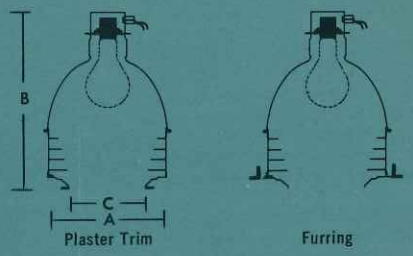
Plaster Trim Sloped

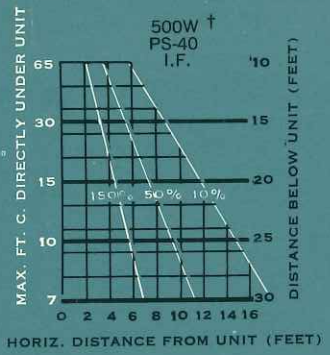


(200-300W) (300-500W)



For 500W R-40 multiply footcandles by 1.75





†For 750W lamp multiply footcandles by 1.67

		500w 750w IF	
% Floor Reflectance		10*	
% Ceiling Reflectance		50-80	
% Wall Reflectance		50	10
Room Ratio	Room Index	Coefficients of Utilization	
0.6	J	.40	.38
0.8	I	.41	.40
1.0	H	.42	.41
1.25	G	.43	.42
1.5	F	.44	.42
2.0	E	.44	.43
2.5	D	.45	.44
3.0	C	.46	.44
4.0	B	.46	.45
5.0	A	.47	.46

*For 30% Floor Reflectance see page 31.

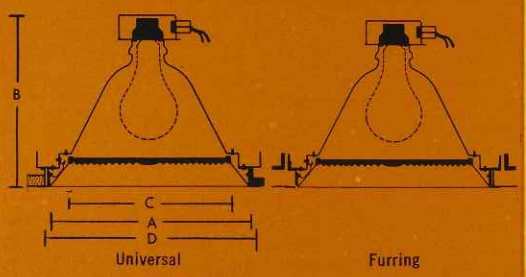
Spacing not to exceed .8 x Distance Below Unit.

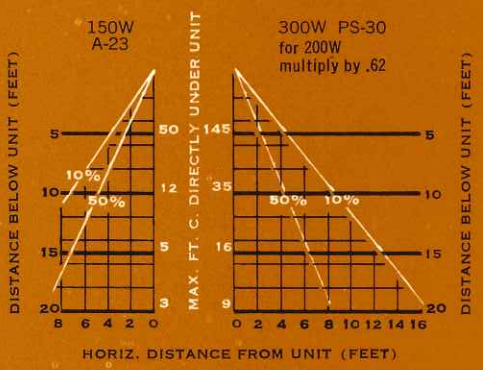
regressed fresnel lens downlights

HI EFFICIENCY ALZAK REFLECTORED UNITS WITH HINGED DOORS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	C Lens Dia.	D Overall Width	Catalog Number
Universal	60-75	A-19, I.F.	6½″	7¾″	4½″	7″	BF-2010
	100	A-21, I.F.*	9⅜″	9½″	7″	10″	BF-2110
	150	A-23, I.F.**	9⅜″	10¼″	7″	10″	BF-2210
	200	PS-25, I.F.	10¼″	11″	9″	12″	BF-2310
	200-300	PS-30, I.F.	14½″	12⅜″	11¼″	15¼″	BF-2410
	300	PS-30, I.F.	16½″	12½″	13¾″	17¼″	BF-2510
Furring	60-75	A-19, I.F.	6½″	7¾″	4½″	7″	BF-2030
	100	A-21, I.F.*	9⅜″	9½″	7″	10″	BF-2130
	150	A-23, I.F.**	9⅜″	10¼″	7″	10″	BF-2230
	200	PS-25, I.F.	10¼″	11″	9″	12″	BF-2330
	200-300	PS-30, I.F.	14½″	12⅜″	11¼″	15¼″	BF-2430
	300	PS-30, I.F.	16½″	12½″	13¾″	17¼″	BF-2530

*A-19 may be used with or without socket extender.
**A-21 may be used with or without socket extender.





		GENERAL SERVICE			
		150A		200W & 300W PS 30	
% Floor Reflectance		10*		10*	
% Ceiling Reflectance		50-80		50-80	
% Wall Reflectance		50	10	50	10
Room Ratio	Room Index	COEFFICIENTS OF UTILIZATION			
0.6	J	.38	.34	.41	.35
0.8	I	.44	.38	.46	.41
1.0	H	.46	.41	.49	.44
1.25	G	.49	.45	.52	.47
1.5	F	.52	.47	.54	.50
2.0	E	.55	.50	.57	.53
2.5	D	.56	.52	.59	.55
3.0	C	.58	.54	.60	.57
4.0	B	.59	.56	.61	.58
5.0	A	.61	.57	.62	.60

*For 30% Floor Reflectance see page 31.
Spacing not to exceed .9 x Vertical Distance Below Unit.

Specification Features

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below.

Socket-Outlet Box Assembly includes 4½′ of #14 AF wire and connector for ½″ flexible conduit. Attaches to reflector by key-hole slots.

Aluminum Reflector, anodized and diffuse attaches to trim flange.

Steel Mounting Ring is flanged with four mounting brackets for attachment to appropriate mounting assembly.

Trim Flange Assembly is spun aluminum; attaches to mounting ring by key-hole slots. Has narrow flange surface. Three internal lugs engage bayonet slots of lens ring.

Lens-Ring Assembly consists of a heat resistant glass Fresnel lens regressed 1¾″ in aluminum lens ring. Releases from trim flange for relamping on concealed safety chain by counter-clockwise twist.

Mounting Assemblies

Furring Mounting: Bridge-Mounting Assembly (described on page 23)

Finish: all steel parts anti-rust treated with phosphatizing process. Mounting ring, and inside surfaces of trim flange and lens ring sprayed baked-on enamel, matte black; exposed surfaces bone white.

Labels: UL; AFL-IBEW

PRE-WIRED ALZAK REFLECTORED UNITS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	C Lens Dia.	D Overall Width	Catalog Number
Universal	150*	A-23, I.F.	8¼″	9″	7″	13″	BF-1010
	200-300	PS-30, I.F.	10¼″	11″	9″	15″	BF-1110
Furring	150*	A-23, I.F.	8¼″	9″	7″	13″	BF-1030
	200-300	PS-30, I.F.	10¼″	11″	9″	15″	BF-1130

*100w A-19 may be used with socket extender.

Specification Features

Units are for recessing in all types of new or existing ceilings; relamp from below.

Pre-wired Yoke Assembly includes steel yoke and pre-wired splice box for 60°C building wire. Assures neat installed appearance without light leaks —*exclusive pull-up feature described on page 22.*

Housing is a ventilated steel cylinder; diffuse anodized *aluminum reflector* mounted in housing.

Lens Door Assembly consists of a heat resistant glass Fresnel lens regressed ¾″ in ceiling trim assembly. Leaf springs hold assembly tightly against ceiling. May be opened without tools and hinged for relamping.

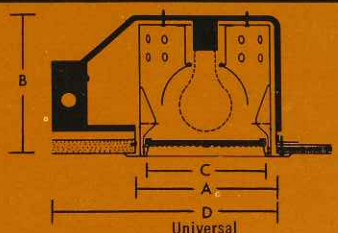
Mounting Assemblies

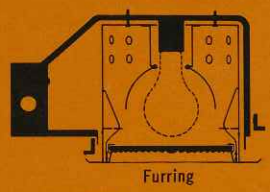
Universal Mounting: Ceiling Ring Assembly (described on page 22)

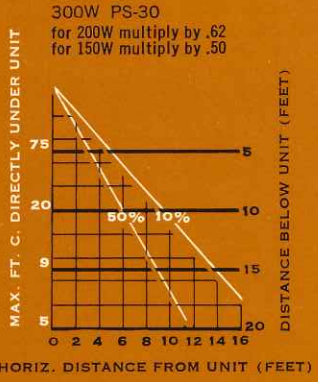
Furring Mounting: Bridge-Mounting Assembly (described on page 23)

Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked enamel. Yoke assemblies matte black; all other parts bone white.

Labels: UL; AFL-IBEW







		200W & 300W PS 30†
% Floor Reflectance		10*
% Ceiling Reflectance		50-80
% Wall Reflectance		50 / 10
Room Ratio†	Room Index	Coefficients of Utilization
0.6	J	.31 / .27
0.8	I	.34 / .31
1.0	H	.36 / .33
1.25	G	.39 / .35
1.5	F	.40 / .37
2.0	E	.42 / .39
2.5	D	.43 / .41
3.0	C	.44 / .42
4.0	B	.45 / .43
5.0	A	.46 / .44

*For 30% Floor Reflectance see page 31.

†For 150W A-23 Multiply by 1.1
Spacing not to exceed 1.2 x Vertical Distance Below Unit

Specification Features

Units are for recessing in all types of new or existing ceilings; relamp from below.

Yoke Assembly assures neat installed appearance with no light leaks — *exclusive pull-up feature described on page 22.*

Housing is a steel cylinder; connector for ½″ flexible conduit installed in side.

Adjustable Socket permits 1½″ vertical travel to change beam pattern; includes 4½′ of #14 AF wire.

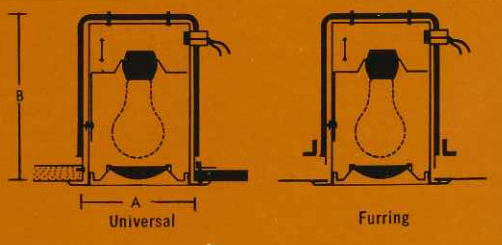
Steel Trim Flange fits snugly against ceiling without visible screws; snap-locks to housing.

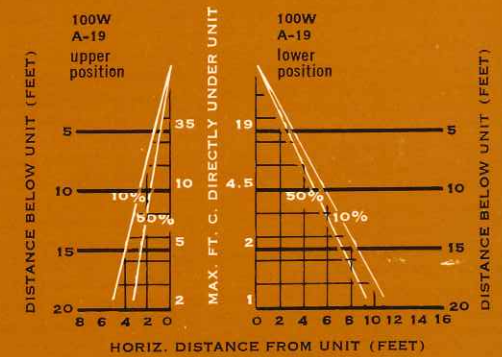
Lens Assembly consists of a Plano-Convex lens 3¼″ dia. regressed in a steel holder. Holder is secured by two spring catches in housing.

ADJUSTABLE ACCENT UNITS

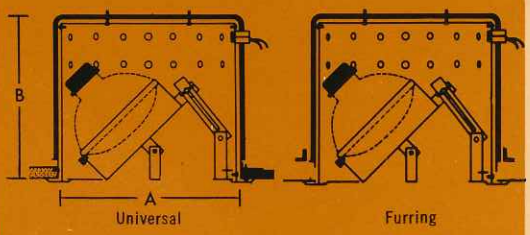
Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	B Recess Depth	Catalog Number
Universal	100*	A-19,A-21,I.F.	5⅞″	8¾″	BF-3010
Furring	100*	A-21, I.F.	5⅞″	8¾″	BF-3030

*Lower wattage lamps may also be used with or without socket extender.

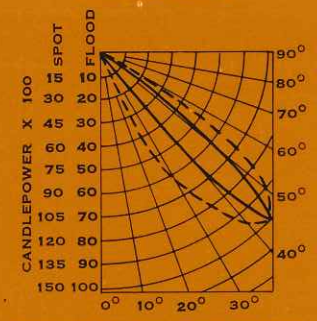




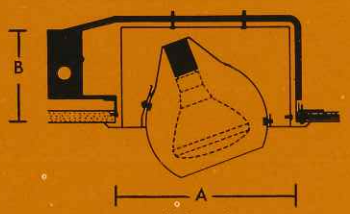
directional downlights

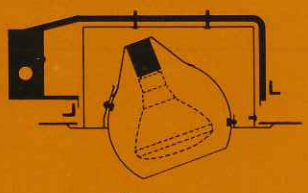


CANDLE POWER DATA
FOR PAR-46 LAMPS



Maximum Tilt — (for straight down data for spot lamp refer to page 31. For Flood lamp multiply above curve by 1.09)





for performance data, see page 31

Mounting Assemblies
Universal Mounting: Ceiling Ring Assembly (described on page 22)
Furring Mounting: Bridge-Mounting Assembly (described on page 23)

Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surfaces of trim flanges, aperture plate, and eyeball assembly bone white; all other parts matte black.

Labels: UL; AFL-IBEW

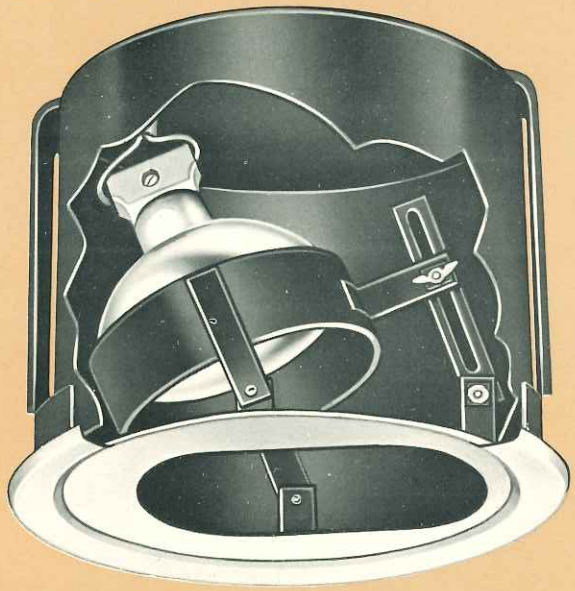
Accessory Louvers provide 45° shielding. Concentric ring assemblies of die-cast zinc with matte grey baked-on enamel finish.

HIGHER WATTAGE OVAL APERTURED ADJUSTABLE UNITS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Max. Beam Tilt	Catalog Number
Universal	200	PAR-46	10¼″	9″	45°	BD-3010
	300	PAR-56	12¾″	11½″	45°	BD-3110
	500	PAR-64	13¾″	12½″	45°	BD-3210
Furring	200	PAR-46	10¼″	9″	45°	BD-3030
	300	PAR-56	12¾″	11½″	45°	BD-3130
	500	PAR-64	13¾″	12½″	45°	BD-3230
Accessory Louver*					(200w)	BK-33
					(300w)	BK-34
					(500w)	BK-38

*Color roundels for use only with louver available on request.

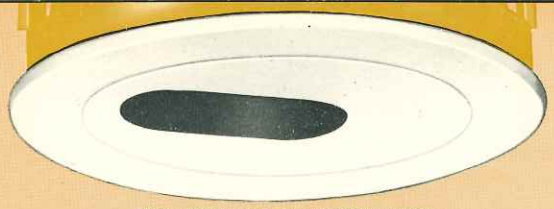
Units are for recessing in all types of new or existing ceilings and may be relamped from above or below.
Yoke Assembly assures neat installed appearance with no light leaks — *exclusive pull-up feature described on page 22.*
Housing is a steel cylinder. Socket is wired with 4½′ leads of asbestos covered wire. Connector for ½″ flexible conduit installed in housing.
Aperture Assembly includes steel trim flange which fits snugly to housing without visible screws; a steel aperture plate with offset oval opening, and an adjustable lamp-holder device. Friction adjustment permits angulation to 45° from vertical. Aperture plate rotates 358° within trim flange.



Units are for recessing in all types of ceilings; relamp from below.
Pre-wired Yoke Assembly includes steel yoke and pre-wired splice box for 60°C building wire. Assures neat installed appearance without light leaks — *exclusive pull-up feature described on page 22.*
Steel Trim Flange fits snugly against ceiling without visible screws; snap-locks to *cylindrical steel housing.*
Eyeball Assembly rotates through 358° inside trim flange. Vertical tilt is to 35° by friction adjustment. Socket is mounted on eyeball assembly.

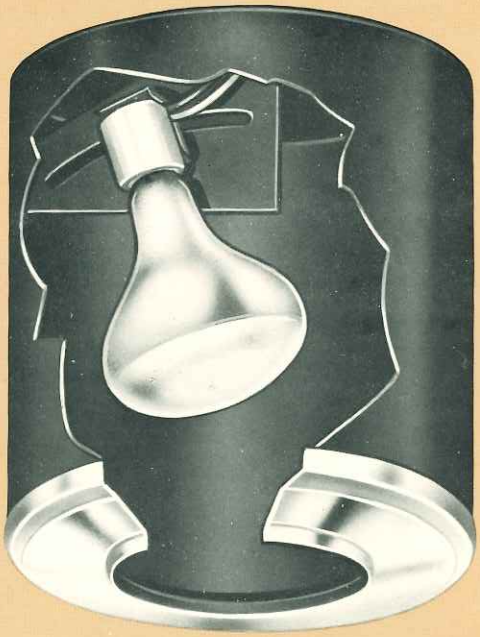
ADJUSTABLE EYEBALL UNITS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Dimensions D Overall Width	Catalog Number
Universal	150	R-40, PAR-38	10¼″	5⅞″	14⅜″	BD-4010
Furring	150	R-40, PAR-38	10¼″	5⅞″	14⅜″	BD-4030
Accessory Louver for use with PAR-38 Lamp Only						BK-35



OVAL APERTURED ADJUSTABLE UNITS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Max. Beam Tilt	Catalog Number
Universal	30-50, 75 150	R-20, R-30 R-40, PAR-38	6″ 10¼″	5½″ 9″	25° 45°	BD-2010 BD-2110
Furring	30-50 150	R-20, R-30 R-40, PAR-38	6″ 10¼″	5½″ 9″	25° 45°	BD-2030 BD-2130



NO TRIM (BD-1030)

ROUND APERTURED ADJUSTABLE UNITS

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Dimensions C Aperture Dia.	Catalog Number
Universal	75-150 300	R-30, R-40 PAR-38 R-40	10¼″ 10¼″	9½″ 11¾″	5¼″ 6″	BD-1010 BD-1110
Universal Sloped	75-150 300	R-30, R-40 PAR-38 R-40	10¼″ 10¼″	9½″ 11¾″	5¼″ 6″	BD-1011 BD-1111
Plaster Trim	75-150 300	R-30, R-40 PAR-38 R-40	9¾″ 9¾″	9″ 12″	5¼″ 6″	BD-1020 BD-1120
Plaster Trim Sloped	75-150 300	R-30, R-40 PAR-38 R-40	8½″ 8½″	9″ 12″	5¼″ 6″	BD-1021 BD-1121
Furring (No Trim)	75-150 300	R-30, R-40 PAR-38 R-40	5⅜″ 6⅛″	9″ 12″	5¼″ 6″	BD-1030 BD-1130
Optional Trim Flange for Furring Mounting Units					(75-150w) (300w)	BK-70 BK-71

Units are for recessing in all types of new or existing ceilings and may be relamped from above or below.

Housing is a steel cylinder with porcelain socket mounted on adjustable bracket attached to top. Socket is wired with 4½′ of #14 AF wire; connector for flexible conduit installed in side of housing (⅜″ oval units; ½″ round units). Friction adjustment of bracket permits 358° rotation, and beam angulation from vertical. For *round apertured* units beam angulation is to 37°; for *oval apertured* units 25° (75w) and 45° (150w).

Yoke Assembly assures neat installed appearance with no light leaks — *exclusive pull-up feature described on page 22* (furnished with all *oval* apertured units, and *round* apertured units for *universal* mounting only).

Aperture Assemblies

Round Apertured Units

Universal Mounting: steel trim flange and internal mounting ring with bayonet slots which attach to ceiling ring. Design assures tight seating of flange to ceiling with no light leaks.

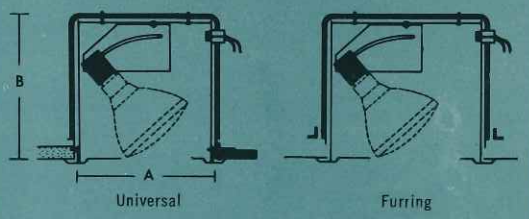
All Other Types: spun aluminum ring tab-locks to housing.

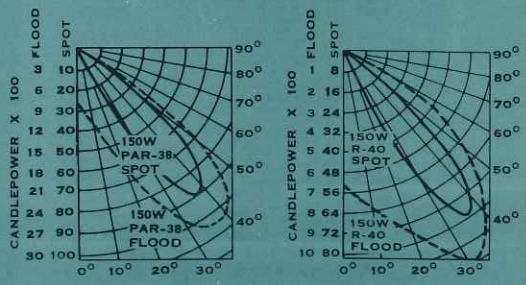
Oval Apertured Units

Steel trim flange fits snugly to housing without visible screws. Aperture plate with *offset* oval opening rotates 360° within trim flange.

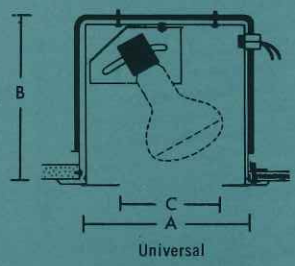
Mounting Assemblies

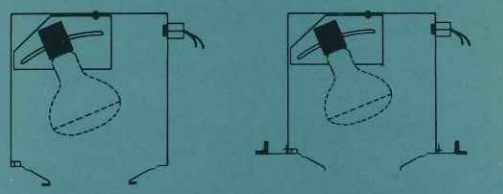
Universal Mounting: Ceiling Ring Assembly (described on page 22)
Plaster Trim: Aperture Trim Assembly (described on page 22)
Furring Mounting: Bridge-Mounting Assembly (described on page 23)
Universal Sloped, Plaster Trim Sloped: Sloped Ceiling Assembly (described on page 22)

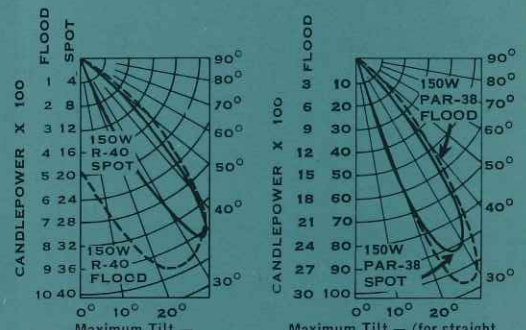




Maximum Tilt — (for straight down data refer to page 31)







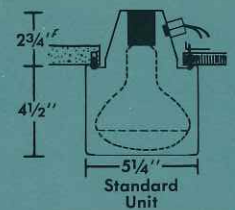
Maximum Tilt — (for straight down data multiply lamp data on page 31 by .96 for Flood and .85 for Spot)

Maximum Tilt — (for straight down data refer to page 31)

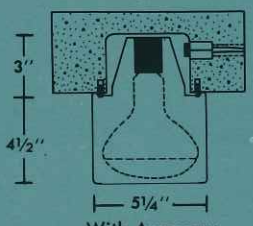
Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surfaces of trim flange and aperture plate bone white; all other parts matte black. *Labels:* UL; AFL-IBEW

Wattage	Lamp Type	Dimensions	Catalog Number
150	R-40, PAR-38	(see illus.)	BV-1010
Accessory Concrete Pour Box			BK-61
Accessory Louver (PAR-38 only)			BK-35

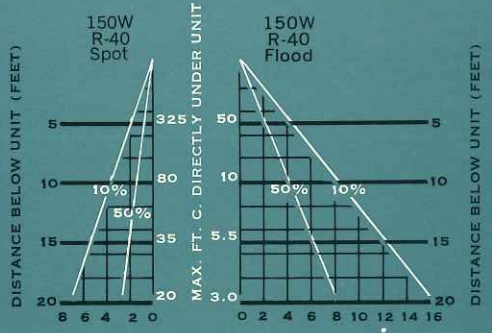
A semi-recessed unit for all types of ceilings with shallow plenums or for concrete; relamp from below.
Housing Assembly is a spun aluminum cylinder and socket box. Includes porcelain socket with 4½′ of #14 AF wire, and connector for ½″ flexible conduit.
Mounting Assemblies
Ceiling Ring Assembly (described on page 22)
Aluminum, Concrete-Pour Box (accessory item)
Finish: Housing cylinder exterior brushed satin and sprayed with clear lacquer protective coating; interior, sprayed baked-on enamel, matte grey.
Labels: UL; AFL-IBEW
Accessory Louver provides 45° shielding; concentric ring assembly, die-cast zinc with matte grey baked-on enamel finish.



Standard Unit



With Accessory Pour Box

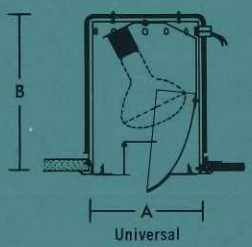


INITIAL FOOTCANDLES WITH UNIT 2′ OUT FROM WALL

DISTANCE BELOW CEILING	HORIZONTAL DISTANCE FROM UNIT				
	0′	1′	2′	3′	4′
1′	12.0	8.9	3.4	1.4	.7
2′	6.8	7.4	3.2	1.3	.7
3′	4.2	4.2	2.3	1.2	.6
4′	2.3	2.2	2.2	1.0	.6
5′	2.2	1.4	1.3	.7	.5
6′	1.4	1.3	1.2	.6	.5

INITIAL FOOTCANDLES WITH UNIT 3′ OUT FROM WALL

DISTANCE BELOW CEILING	HORIZONTAL DISTANCE FROM UNIT				
	0′	1′	2′	3′	4′
1′	4.9	3.7	2.7	1.4	.7
2′	4.2	3.4	2.6	1.3	.8
3′	3.1	2.4	2.4	1.2	.7
4′	2.7	2.0	1.5	1.1	.7
5′	2.6	1.7	1.4	1.0	.6
6′	1.4	1.4	1.1	.7	.5



Universal

Plaster Trim

Furring

semi-recessed downlight

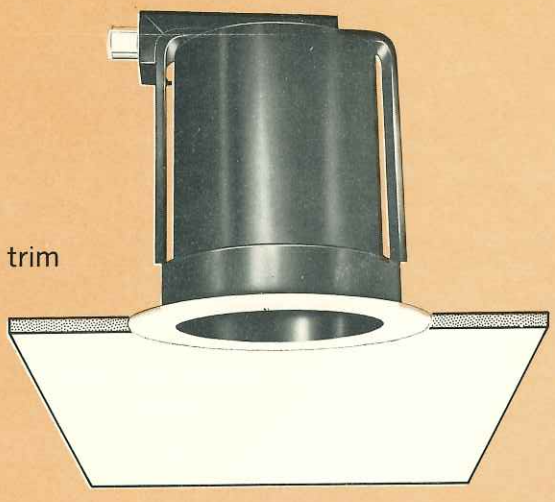
adjustable wall washer

Units are for recessing in all types of new or existing ceilings; relamp from below.
Housing Assembly consists of a ventilated, cylindrical steel housing with socket and specular Alzak aluminum reflector mounted on internal bracket. Bracket revolves for aiming light beam; reflector directs light to wall starting at ceiling line. Includes 4½′ of #14 AF wire, and connector for ½″ flexible conduit in side of housing. Units for Universal Mounting have Steel Yoke Assembly with *exclusive pull-up action described on page 22.*
Aperture Assembly includes a revolving steel aperture plate, reflector cover, and internal baffle which completely shields lamp. Snap-locks to trim flange.
Mounting Assemblies
Universal Mounting: Ceiling Ring Assembly (described on page 22)
Furring Mounting: Bridge-Mounting Assembly (described on page 23)
Finish: all steel parts anti-rust treated with phosphatizing process and sprayed baked-on enamel. Exposed surfaces of aperture plate bone white; all other parts matte black. *Labels:* UL; AFL-IBEW

Mounting	Wattage	Lamp Type	Dimensions A Ceiling Opening	Dimensions B Recess Depth	Catalog Number
Universal	150	R-40 Flood	8¼″	11¾″	BV-2010
Plaster Trim	150	R-40 Flood	7¾″	11¼″	BV-2020
Furring	150	R-40 Flood	8¼″	11¼″	BV-2030

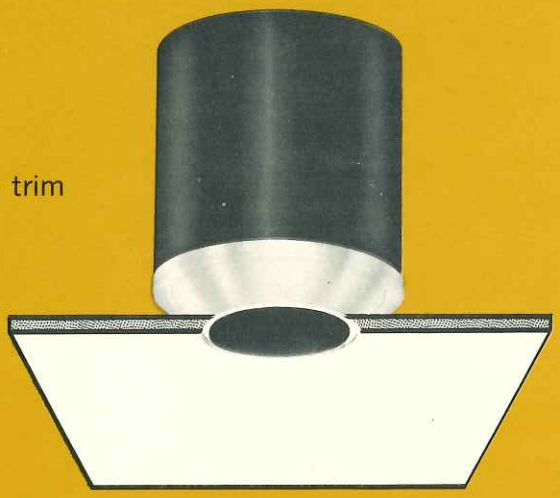
ceiling trim selector

standard trim



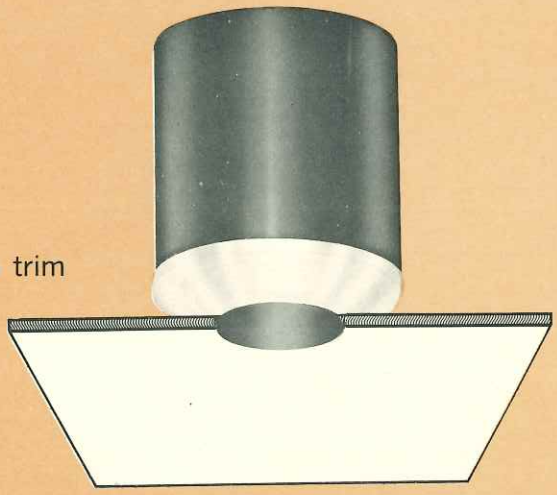
Units with *standard trim* are for *use in any type ceiling, wet or dry.* Trim flange draws snugly against the ceiling to prevent light leaks, and there are no visible screws or hardware to mar appearance. Standard Trim is provided with all units for Universal, and Universal Sloped Mounting. It is also furnished with units for Furring Mounting unless otherwise identified as "no trim".

nearly invisible trim



Units for installation in *new plaster ceilings* feature the nearly invisible trim. Aperture ring has a very narrow plaster ground lip that is flush with the ceiling. After the ceiling and ring are painted together, the outline of the aperture ring virtually disappears. Appearance is that of an aperture without any trim ring. This subtle trim choice is provided with units for Plaster Trim and Plaster Trim Sloped Mounting.

no trim



Units featuring *No Trim* are for *use in suspended, dry acoustical ceilings.* They permit the ultimate in clean, uncluttered ceiling lines, and inconspicuous lighted appearance. Only the aperture is visible. This choice is an exclusive feature of all units for Furring Mounting which are identified as "no trim".

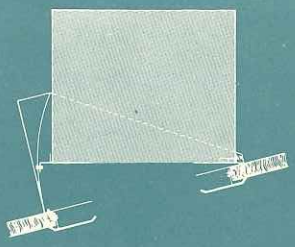
NOTE: Mounting Assemblies provided for each mounting type are described on pages 22 and 23. Detailed installation instructions are included with each fixture carton.

mounting selector

universal sloped mounting

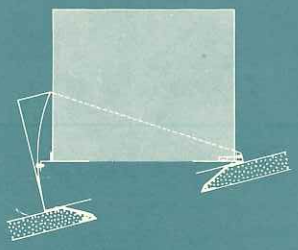
any type ceiling, wet or dry

Assembly fastens to lath or furring so ceiling ring is flush with ceiling line. Flange attaches to ceiling ring by bayonet slots. Trim is *Standard.*



sloped ceiling assemblies

Sloped ceiling assemblies permit units to be installed vertically in ceilings with slopes from 5°-30°. Leveler plate may be preset to correct slope so that it is level with floor when assembly is installed. Housing tab-locks to assembly after ceiling is finished. Aluminum sides close gap between aperture and housing bottom. Finish baked-on enamel; outside, bone white, inside matte black.



plaster trim sloped mounting

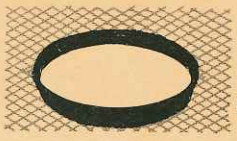
new plaster ceilings

Assembly ties to lath so aperture ring is flush with ceiling line. After plastering and painting, trim is *Nearly Invisible.*

NOTE: Detailed installation instructions are included with each fixture carton.

universal mounting

For Any Type Ceiling, Wet or Dry



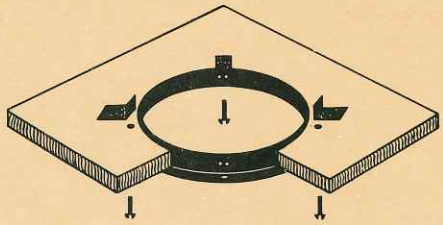
for new plaster ceilings

Ceiling ring is wired to lath, flange up, to provide plaster ground.

ceiling ring assembly

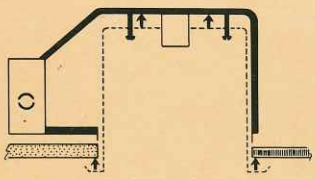
for dry ceilings

Flanged steel ceiling ring attaches to ceiling tile with patented mounting clips and screws furnished. May be mounted to tile at floor level.

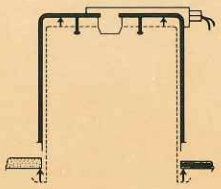


provided with all units for Universal Mounting

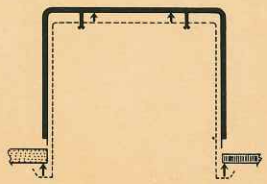
yoke assemblies



prewired yoke/splice box assembly



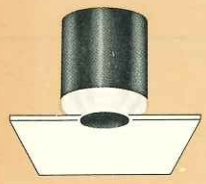
wired yoke assembly



yoke connector mounted in housing

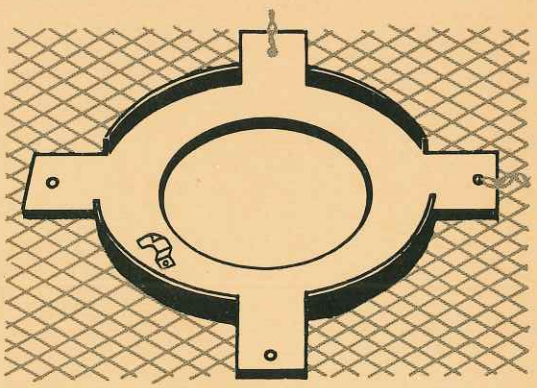
Exclusive Pull-up Action of yoke assemblies assures neat installation without light leaks. Two installed screws engage with key hole slots in top of housing and pull housing and trim flange assembly tightly against ceiling. For Universal Mounting, slotted feet of yoke engage interior screws in ceiling ring. For Furring Mounting, yoke attaches to angle rails of Bridge-Mounting Assembly.

provided with units for Universal and Furring Mounting as indicated by line illustrations on individual catalog sheets



plaster trim mounting

For New Plaster Ceilings



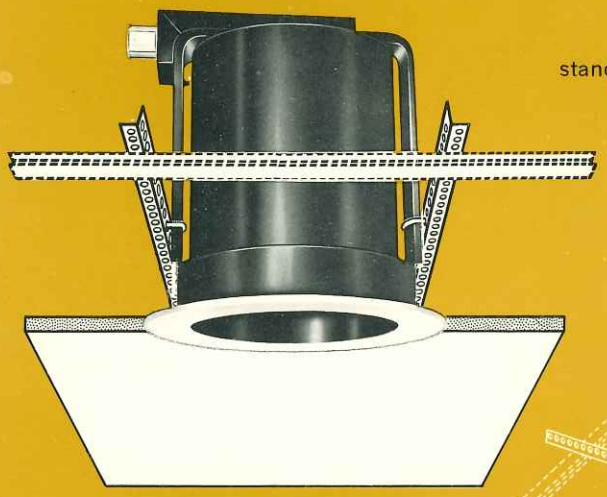
aperture trim assembly

Spun aluminum ring with plaster ground lip is tied to wire lath and is plastered flush with ceiling. Cardboard disc provided to protect unit during plastering. Assembly tab-locks to housing.

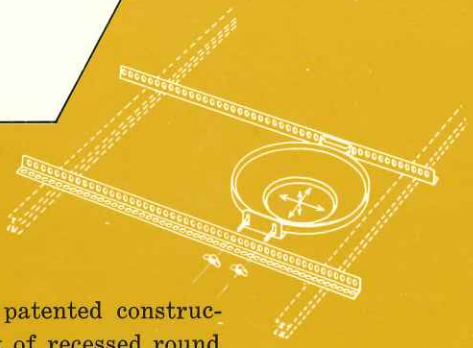
provided with all units for Plaster Trim Mounting

furring mounting

For Suspended Acoustical Ceilings



standard trim

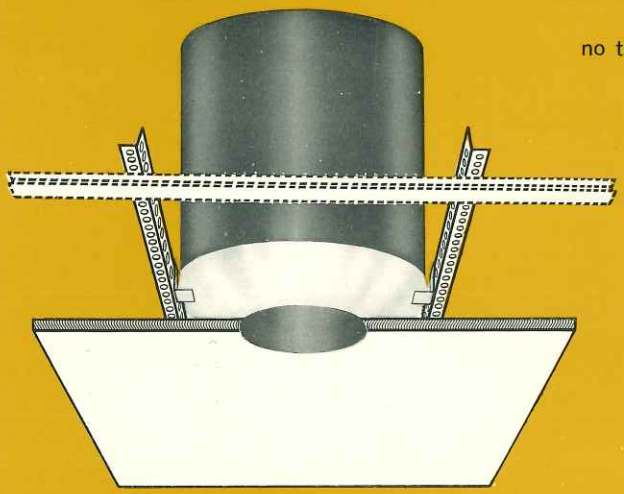


bridge-mounting assembly

The Bridge-Mounting Assembly is a patented construction which transfers the entire weight of recessed round units to the furring rails of the suspended ceiling system. No fixture weight is supported by the tiles. Construction is applicable to all types of acoustical tiles and virtually all suspension systems. Provisions for horizontal and vertical adjustment permit precise positioning of aperture assembly in ceiling opening. The standard assembly consists of two 28″* steel angle rails with holes, U-Bolts and wing nuts, and mounting clips to secure rails to furring members.

*special lengths available on request

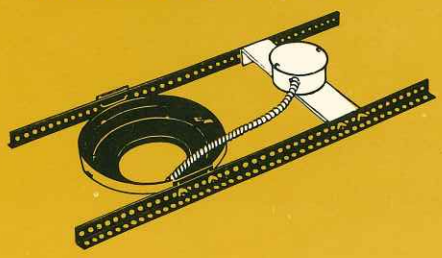
provided with all units for Furring Mounting



no trim

Note: Detailed installation instructions are included with each fixture carton.

accessories



outlet box adaptor *(prewiring assembly)* **BK-80**

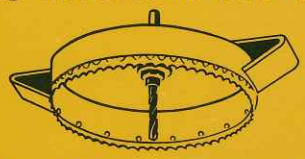
Converts any Furring Mounting Unit to Prewired Construction. 4″ outlet box and connector with adequate length of ½″ flexible conduit mounted on steel support strap. U-Bolts with wing nuts provided. Attaches to angle rails of Bridge Mounting Assembly at any convenient point. May also be used as junction box for several units.

optional trim flange

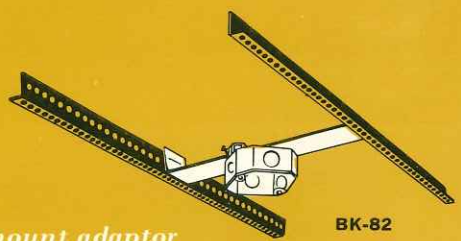
For use where holes in tiles are cut unevenly, or where trim flange appearance is desired. Aluminum, sprayed baked enamel, bone white. Use with Furring Mounting "no-trim" units, only (See individual catalog sheets for ordering number).

circle saw

Saves time; makes tile cutting easy. Cuts precise hole for aperture ring. Returnable for credit after completion of job.



For 5¼″ dia. apertures **BK-72**
For 6″ dia. apertures **BK-73**



BK-82

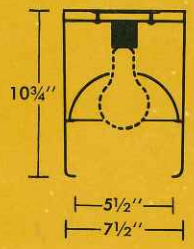
surface mount adaptor
(ceiling box bridge-mounting assembly)

Transfers Weight of *Surface* Mounted Units to Furring Rails. Two 28″ angle rails and outlet box with connector for ½″ flexible conduit mounted on steel support strap. Support strap attaches to rails at any point by U-Bolts and wing nuts provided. Provision for vertical adjustment of support strap.

OPEN ALZAK REFLECTORED UNIT

Wattage	Lamp Type	Catalog Number
150	A-23, I.F.*	BA-2140

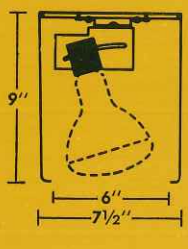
For performance data, refer to BA-2110 — Pg. 10



Aperture shielding to 45° below horizontal. Specular reflector of spun aluminum is supported by concealed, black enameled steel cylinder resting on bottom flange of housing.

All units are for indoor and outdoor applications. Housings are seamless spun aluminum; cylindrical units have bottom flange. Housing exterior sprayed semi-gloss baked-on white enamel; interior, and steel top pan of cylindrical units matte black. Top pan supports porcelain socket wired with AF leads. ¾" fiberglass insulation pad between top pan and steel mounting plate. All steel parts anti-rust treated with phosphatizing process. *Labels:* UL; AFL-IBEW.

Adjustable socket bracket permits complete rotation and 25° socket tilt. Stops prevent wire twisting. Bracket is supported by top pan. Accessory louver provides 45° shielding.



OPEN DIRECTIONAL UNIT FOR PAR AND R LAMPS

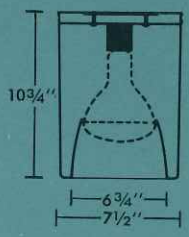
Wattage	Lamp Type	Catalog Number
75-150	R-30, R-40, PAR-38	BD-1040
Accessory Louver (PAR-38 only)		BK-31

For performance data, refer to BD-1010 — Pg. 19

OPEN ALZAK REFLECTORED UNITS FOR PAR AND R LAMPS

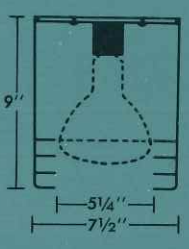
Wattage	Lamp Type	Catalog Number
150	PAR-38 Flood	BA-4040
150	R-40 Flood	BA-4140

For performance data, refer to BA-4010 — Pg. 12



Low brightness specular reflector of spun aluminum provides shielding 40° below horizontal for PAR-38 unit. Shielding for R-40 unit is 30°. Reflector is supported by bottom flange.

Annular baffle shielding is 30° below horizontal. Cylindrical steel baffle assembly rests on bottom flange of housing. Baffle tops white enamel; bottoms matte black.



BAFFLED UNIT FOR PAR AND R LAMPS

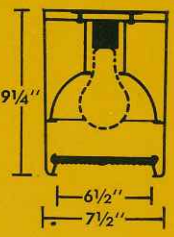
Wattage	Lamp Type	Catalog Number
75-150	R-30, R-40, PAR-38	BC-1040

For performance data, refer to BC-1010 — Pg. 14

REGRESSED FRESNEL LENS DOWNLIGHT

Wattage	Lamp Type	Catalog Number
150	A-23, I.F.	BF-1040

For performance data, refer to BF-1010 — Pg. 17

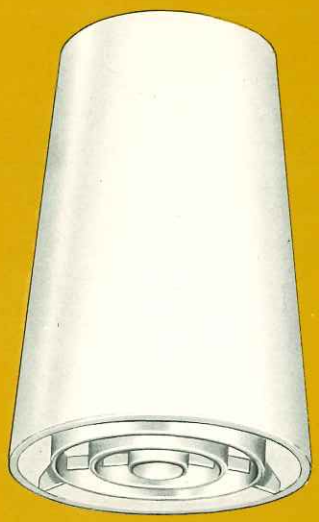


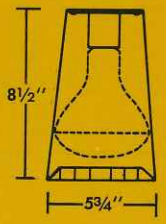
Heat resistant, glass Fresnel lens regressed ¾" in housing. Lens is mounted in steel regressing ring which is supported by bottom flange of housing.

OPEN NON-REFLECTORED DOWNLIGHTS

Wattage	Lamp Type	Catalog Number
30-150	General Service, I.F., R-30 R-40, PAR-38	BN-1040 (interior service)
		BN-1140 (outdoor service)
	Accessory Louver	BK-32

For performance data, refer to BN-1010 — Pg. 7



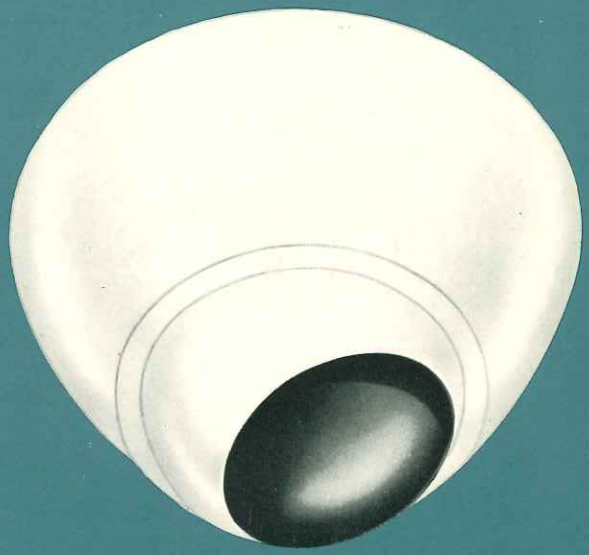


Tapered spun aluminum housing with steel re-inforcing plate in top. Housing exterior sprayed semi-gloss baked-on white enamel; interior and accessory louver matte grey. Louver is concentric ring, die-cast zinc; provides 45° shielding.

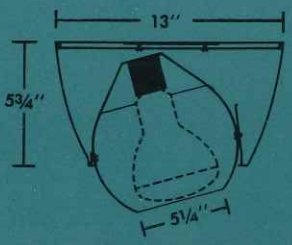
ADJUSTABLE EYEBALL UNIT FOR PAR AND R LAMPS

Wattage	Lamp Type	Catalog Number
75-150	R-30, R-40, PAR-38	BD-4040
Accessory Louver		BK-31

For performance data, see page 31



Spun aluminum housing and steel eyeball sphere. Exposed surfaces white enamel; concealed surfaces matte black. Sphere rotates to 358° and to 35° from vertical. Has friction adjustment, and device for relieving strain on socket leads. Mounting plate is steel. Accessory louver provides 45° shielding.

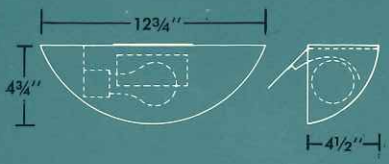


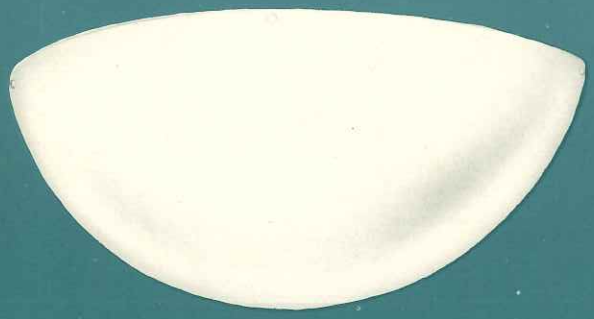
INITIAL FOOTCANDLES WITH UNIT 2′ OUT FROM WALL

DISTANCE BELOW CEILING	HORIZONTAL DISTANCE FROM UNIT							
	0′	1′	2′	3′	4′	5′	6′	7′
3″	23.2	18.0	10.8	5.6	2.5	1.0	.6	.5
1′	45.6	32.0	16.5	8.5	2.6	1.3	.7	.5
2′	26.0	21.0	11.6	6.1	2.5	1.3	.8	.5
3′	11.5	9.5	6.5	3.7	1.9	1.0	.5	.5
4′	6.5	5.5	4.4	2.6	1.9	.7	.5	.4
5′	2.5	2.4	1.5	1.3	1.0	.6	.5	.4
6′	1.3	1.0	1.0	.8	.5	.4	.4	.3
7′	.8	.7	.6	.5	.5	.5	.4	.3
8′	.5	.5	.5	.4	.4	.3	.3	.3
9′	.4	.4	.5	.4	.4	.4	.3	.3
10′	.3	.4	.4	.4	.3	.3	.2	.2

INITIAL FOOTCANDLES WITH UNIT 3′ OUT FROM WALL

DISTANCE BELOW CEILING	HORIZONTAL DISTANCE FROM UNIT							
	0′	1′	2′	3′	4′	5′	6′	7′
3″	7.5	6.4	5.0	3.7	2.5	1.5	1.0	.7
1′	25.0	20.4	12.1	12.1	3.4	1.5	.8	.5
2′	18.0	15.2	9.8	7.1	3.0	1.5	.9	.5
3′	11.0	10.0	7.3	4.6	2.5	1.4	.8	.6
4′	6.6	6.4	4.8	3.0	2.0	1.2	.7	.5
5′	3.9	3.8	3.5	2.1	1.5	1.0	.6	.5
6′	2.5	2.4	1.9	1.9	1.1	.6	.5	.3
7′	1.4	1.4	1.2	1.1	.7	.5	.4	.2
8′	.9	.9	.8	.8	.4	.3	.2	.1
9′	.6	.6	.6	.6	.3	.2	.1	.1
10′	.5	.5	.5	.5	.2	.1	.1	.1





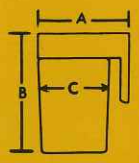
Wattage	Lamp Type	Catalog Number
100	A-19 or A-21, I.F.	BV-2040

surface wall washer

A shallow, inconspicuous unit for ceiling mounting. Ellipsoidal aluminum housing conceals lamp from normal viewing; is attached to steel top plate assembly. Top plate has overhanging eye-lid baffle to prevent excessive brightness at top of wall. Specular Alzak reflector re-directs light to lower wall; is attached to eye-lid. Fiberglass insulation pad located on top of steel outlet box cover. All metal parts except reflector sprayed semi-gloss, bone white baked-on enamel. Steel parts anti-rust treated by phosphatizing process. *Labels:* UL; AFL-IBEW.

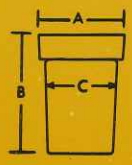
WALL BRACKETS

Watts	Dimensions A	Dimensions B	Dimensions C	Catalog Number
100	4⅝″	6½″	3½″	BW-1041*
200	5¾″	9″	4¾″	BW-1241*
Wall Brackets with WIREGUARDS				
100	5¼″	7¼″	5″	BW-1141*
200	6½″	9¼″	6″	BW-1341*



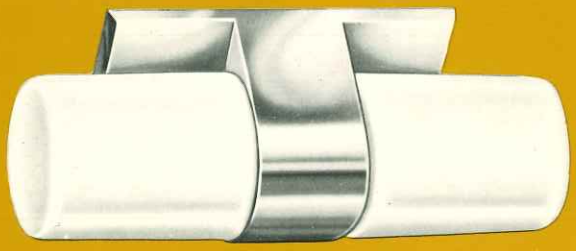
die-cast aluminum brackets

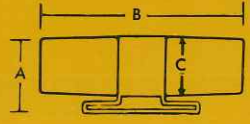
Moisture proof units for use indoors or outdoors. Glass diffusing globe is white ceramic coated; screw-in type. Fitters are one-piece die-cast aluminum alloy with brushed satin finish and clear lacquer protective coating. Impregnated moisture and dust-sealed gasket. Fit 3¼″ or 4″ outlet box. Optional wire-guard is heavy 3/16″ wire, cadmium plated and sprayed aluminum baked-on enamel. *Labels:* UL; AFL-IBEW.



CEILING UNITS

Watts	Dimensions A	Dimensions B	Dimensions C	Catalog Number
100	4¼″	6½″	3½″	BW-3040
200	5¼″	9″	4¾″	BW-3240
Ceiling Units with WIREGUARDS				
100	4¼″	7¼″	5″	BW-3140
200	5¼″	9¼″	6″	BW-3340



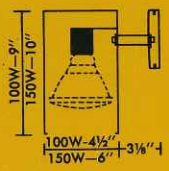


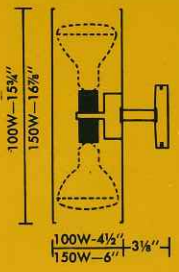
TWIN WALL BRACKETS

Watts	Dimensions A	Dimensions B	Dimensions C	Catalog Number
2-100	4½″	12⅜″	3½″	BW-2042*
2-200	5¾″	18″	4¾″	BW-2242*
Twin Wall Brackets with WIREGUARDS				
2-100	5¼″	15″	5″	BW-2142*
2-200	6½″	18½″	6″	BW-2342*

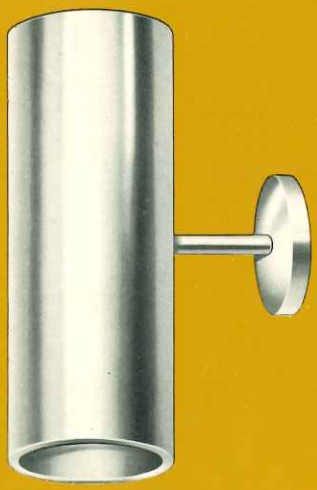
*Also available with convenience outlet and/or pull switch on request.

SINGLE CYLINDER WALL DOWNLIGHTS	
Lamps	Catalog Number
75w R-30 or 100w I.F.	BW-5041
150w R-40, PAR-38, or I.F. "A" Lamp	BW-5141





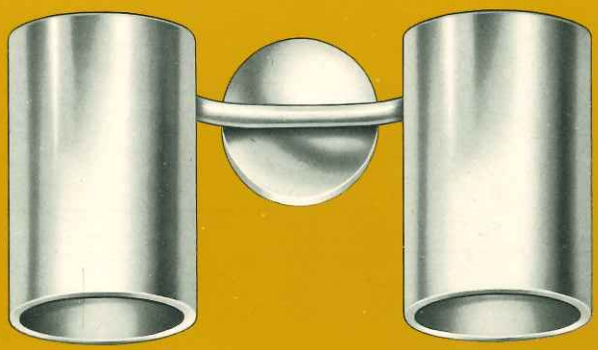
SINGLE CYLINDER WALL UPLIGHT/DOWNLIGHT UNITS	
Lamps	Catalog Number
For Indoor Applications	
75w R-30 or 100w I.F.	BW-6041
150w R-40, PAR-38 or I.F. "A" Lamp	BW-6141
For Outdoor Applications (with gasketed glass top housing)	
75w R-30 or 100w I.F.	BW-6341
150w R-40, PAR-38, or I.F. "A" Lamp	BW-6541



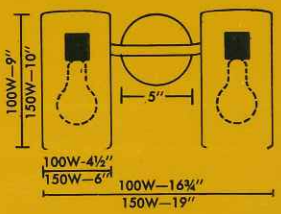
aluminum wall and ceiling units

Units for use indoors and outdoors. Unique, clean design with no exposed connecting hardware to mar appearance. Cylindrical housings, and extension arms on wall units are seamless aluminum. Canopy is spun aluminum; has steel mounting plate. Outside surface of housings, canopies, and arms are satin brushed and sprayed with clear lacquer protective coating. Interiors of housings and steel parts sprayed dark grey baked-on enamel. Indoor uplight/downlight units are open top and bottom; outdoor units have gasketed glass top. Ceiling unit has ¾" fiberglass insulation pad located on top of aluminum mounting plate. *Labels:* UL; AFL-IBEW.

ACCESSORIES (all units)	Description	Unit Size	Catalog Number
Reflector	anodized spun aluminum with specular finish	100w 200w	BK-62 BK-63
Louver	die-cast aluminum, concentric ring; 45° shielding; low brightness grey baked-on enamel finish.	100w 200w	BK-28 BK-29
Fresnel Lens	steel frame finished matte grey baked-on enamel	100w 200w	BK-64 BK-65



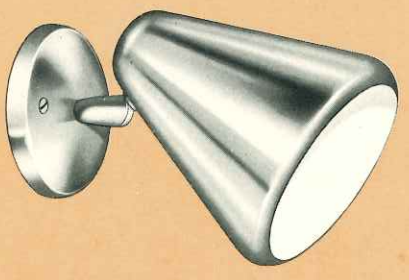
CEILING DOWNLIGHTS	
Lamps	Catalog Number
75w R-30 or 100w I.F.	BW-4040
150w R-40, PAR-38, or I.F. "A" Lamp	BW-4140



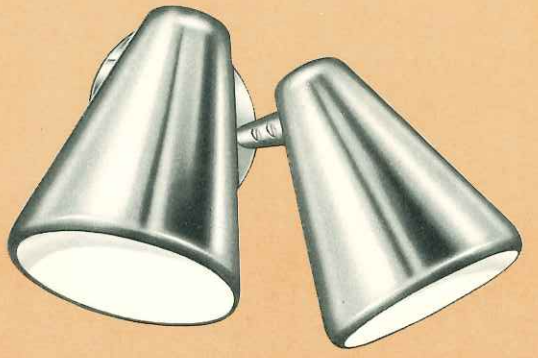
TWIN CYLINDER WALL DOWNLIGHTS	
Lamps	Catalog Number
75w R-30 or 100w I.F.	BW-5241
150w R-40, PAR-38, or I.F. "A" Lamp	BW-5441

swivel accent highlights

BB-2641



BB-2242



BB-2542

Finishes

All reflectors (except style #1) and canopies are seamless spun aluminum with brushed satin finish and clear lacquer protective coating. Reflector style #1 is pearl grey fiber glass with spun aluminum neck. Swivels are die cast Zamac or aluminum alloy. Steel arms and pendant stems are anti-rust treated and sprayed aluminum baked-on enamel.

ACCESSORIES FOR SWIVEL ACCENT UNITS

Description	Catalog Number
Color Filters (for use with BK-35 and BK-36 louvers; specify color — blue, green, pink, amber, ruby, magenta)	BK-10
Adaptor Collar-permits all styles to be mounted with surface wiring and exposed outlet boxes	BK-40
Adaptor Collar with pull switch	BK-41
Adaptor Collar with 2 circuit pull switch	BK-42
Adaptor Collar with convenience outlet (not grounded)	BK-43*
Adaptor Collar with pull switch and convenience outlet (not grounded)	BK-44*
Pin-Up Conversion Mount-8′ cord and plug with steel canopy plate for wall mounting type units	BK-50

*grounded convenience outlets available on request at added cost.

*Stem hanger length = 22½″ **Arm length = 19¼″ ***Arm length = 14″ (other lengths available on request)

Accessory Louver (for reflector styles 2. 3 & 5 only) BK-35

Reflector Style	Lamps	Wall or Ceiling Units apex mounted reflectors	Pendant* Units apex mounted reflectors	Wall or Ceiling Units side mounted reflectors	Wall Units with Canopy Switch side mounted reflectors	Arm*** Display Units apex mounted reflectors	Twin Wall or Ceiling Units side mounted reflectors	Wall Arm** Units with Switch apex mounted reflectors
7¾″ 1 5⅞″	to 75w GS	—	—	BB-1242	BB-1341 apex mounted reflector	BB-1441	BB-1542	BB-1641
7″ 2 6½″	to 100w GS 75w R-30 150w PAR-38	BB-2142	—	BB-2242	BB-2341	BB-2441	BB-2542	BB-2641
8″ 3 6⅜″	to 200w A-25GS 150w R-40 150w PAR-38	BB-3142	BB-3150	BB-3242	—	BB-3441	BB-3542	—
7½″ 4 5⅞″	to 100w GS 75w R-30 150w PAR-38	—	—	BB-4242	BB-4341	BB-4441	—	—
9″ 5 5 1/16″	to 200w A-25GS 150w R-40 150w PAR-38	BB-5142	BB-5150	BB-5242	—	—	BB-5542	—

BB-4441

BB-3142

BB-5150

Features

Steel mounting strap for socket separates socket from reflector for cooler operation and strengthens reflector at swivel mounting point.

Sockets are porcelain; have nickel plated copper cages to prevent bulb freeze.

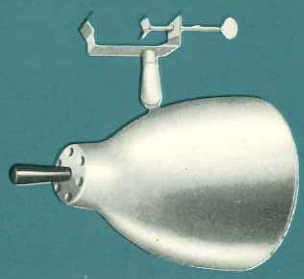
Swivel Assembly which connects all reflectors to canopy or arm has exclusive brake shoe locking action which always holds reflector in desired position with no droop. Secure hold is provided by two phosphor bronze, self-lubricating bearings with adjustable friction resistance. Swivel is fully adjustable to 185° vertical and 400° rotary travel (300° arm mounted units). Built-in stops prevent wire twist.

Wall Swivel which connects adjustable arm to canopy has positive stops which control vertical and horizontal travel. Unique torsion spring/friction bearing action prevents arm from falling and hitting wall. Arm holds selected positions firmly yet is easily re-positioned by finger pressure.

BB-1341

high intensity display units

Spun aluminum reflector with dusk grey baked enamel finish. Wired with porcelain receptacle for prong base lamps. Internal steel ring has beam-positioning notches, and leaf spring retains lamp. Black plastic adjustment handle.



UNITS FOR WALL OR CEILING MOUNTING *

Wattage	Lamp Type	Catalog Number
200	PAR-46	BB-6142
300	PAR-56	BB-7142

Accessory Louver† (200w only) BK-36

UNITS WITH C-CLAMP ** (for attachment to pipe up to 2" dia.)

Wattage	Lamp Type	Catalog Number
200	PAR-46	BB-6791
300	PAR-56	BB-7791

Accessory Louver† (200w only) BK-36

UNITS WITH TWIST-ON ADAPTOR FOR TROL-E-DUCT MOUNTING

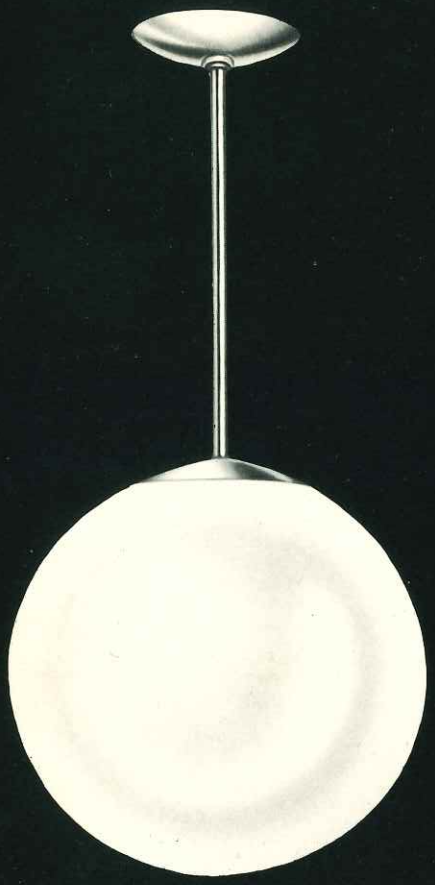
Wattage	Lamp Type	Catalog Number
200	PAR-46	BB-6790
300	PAR-56	BB-7790

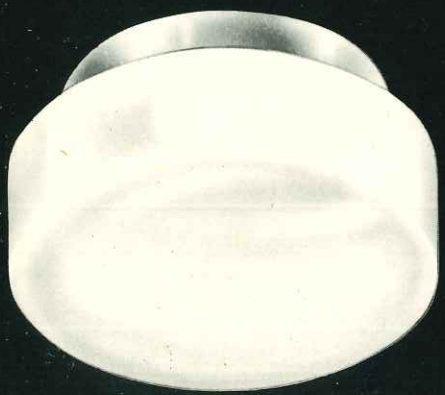
Accessory Louver† (200w only) BK-36

*Also available with 22" pendant stem and canopy on request.

**Provided with 6' cord and plug.

†Concentric ring louver of die cast zinc with three phosphor bronze clips that fit inside reflector. Clips may also be used to retain BK-10 color filters.





All glass is white opal. Spheres are hand-blown; drums are seamless. Fitters for ceiling spheres and drums, and stem, canopy, and globe cover for pendant spheres are aluminum with brushed satin finish and clear lacquer protective coating. Unplated steel parts are anti-rust treated and sprayed baked-on enamel. Porcelain sockets wired with #18 AF wire.

Labels: UL; AFL-IBEW.

CEILING SPHERES

Wattage	Dimensions: Glass Diameter	Dimensions: Fitter Diameter	Dimensions: Overall Depth	Catalog Number
60	8″	4″	9½″	BR-0840
100	10″	4″	11½″	BR-1040
150	12″	5″	13½″	BR-1240
200	14″	6″	15½″	BR-1440
200-300	16″	6″	17½″	BR-1640

*Ceiling to bottom of sphere.

Fitter has steel reinforcing plate to which socket is mounted. Sphere is supported by two internal lugs and thumb screw.

PENDANT SPHERES

Wattage	Dimensions**: Glass Diameter	Dimensions**: Overall Suspension*	Catalog Number
60	10″	30½″	BR-1050
100	12″	32½″	BR-1250
150	14″	34½″	BR-1450
200	16″	43½″	BR-1650
300	18″	45½″	BR-1850
500	20″	47″	BR-2050
500	22″	49″	BR-2250

*Ceiling to bottom of sphere.
**Canopy diameter = 5¾″ all units.

Seamless stem swivels 28° from vertical; cannot be rotated. Stems have threadless connections at both ends; may easily be shortened for installation requirements.

HINGED DRUMS

Lamps	Dimensions: Overall Diameter	Dimensions: Glass Diameter	Dimensions: Overall Depth	Catalog Number
2-60w	10½″	10″	4¾″	BR-3040
2-75w	12½″	12″	5¼″	BR-3240
3-75w	14½″	14″	5¾″	BR-3440

Fitter ring holds glass drum securely and hinges from steel reflector pan for relamping and cleaning. ¾″ spun fiberglass insulation pad located between top of pan and steel mounting plate.

DRUMS WITH REGRESSED FITTER

Lamps	Dimensions: Fitter Diameter	Dimensions: Glass Diameter	Dimensions: Overall Depth	Catalog Number
2-60w	8″	10″	4½″	BR-4040
3-60w	10″	12″	5½″	BR-4240
3-75w	12″	14″	5¾″	BR-4440

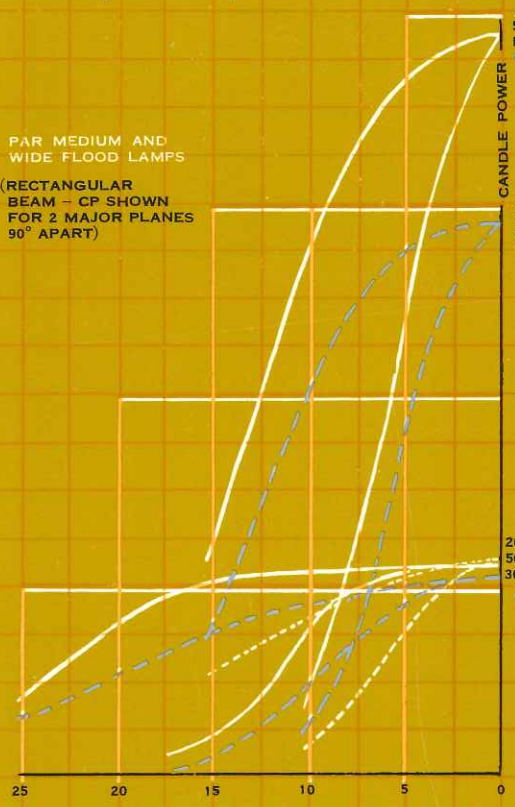
One-piece fitter ring and reflector pan with two internal lugs and thumb screw support glass drum. ¾″ spun fiberglass insulation pad located between fitter and steel mounting plate.

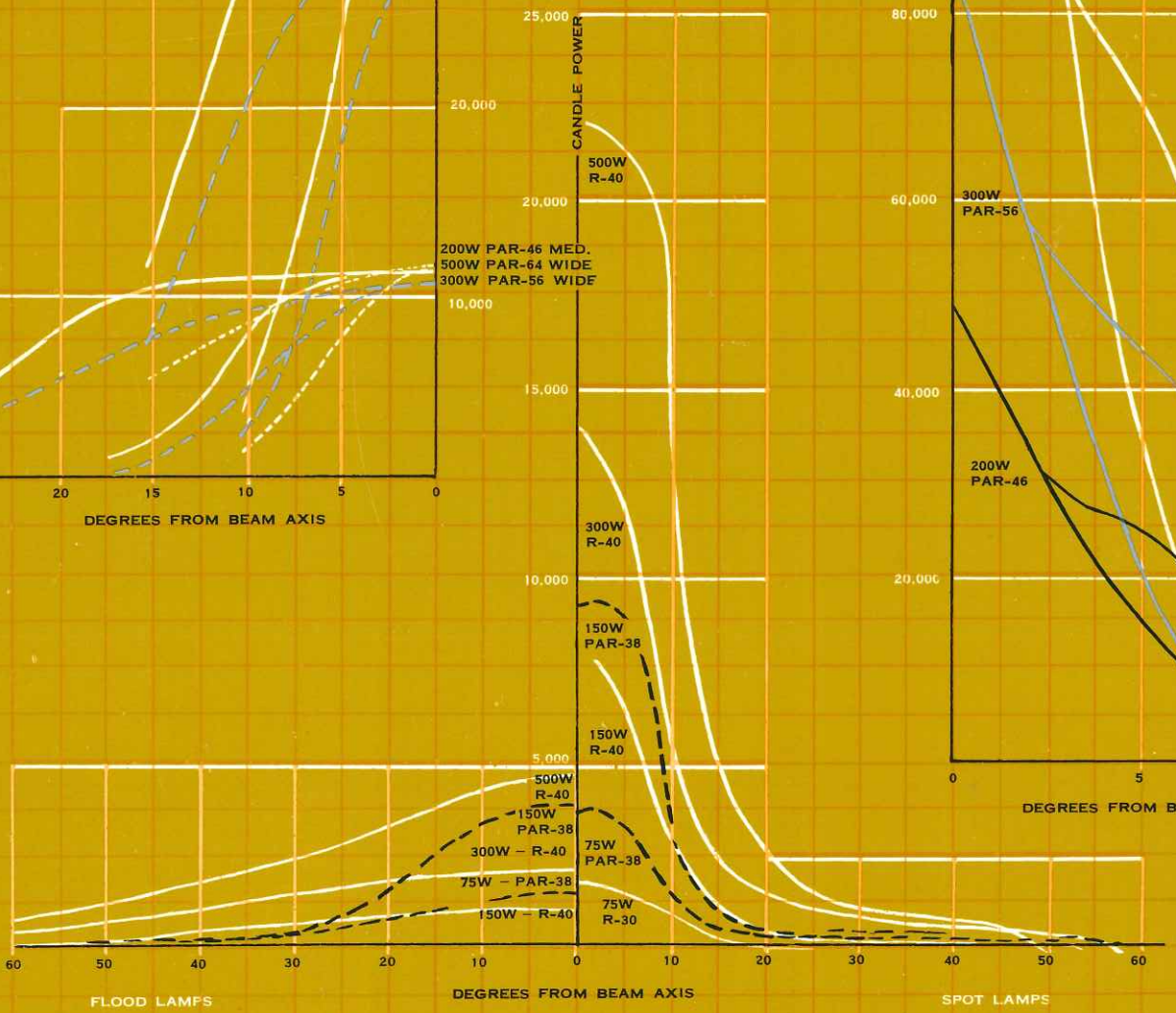
POINT-BY-POINT ILLUMINATION CALCULATION

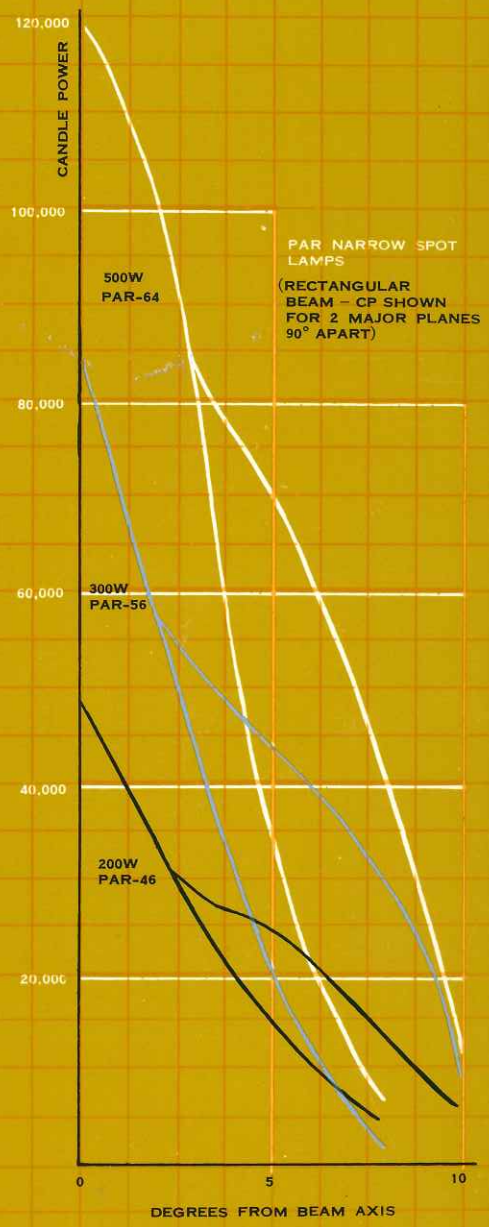
The initial illumination at a point, P, may be computed from the candle power data on this page (for unobstructed lamps) using one of the following formulas:

$$\text{HORIZONTAL FOOTCANDLES} = \frac{CP \times H}{D^3} \text{ or } \frac{CP \times \cos^3\theta}{H^2}$$

$$\text{VERTICAL FOOTCANDLES} = \frac{CP \times R}{D^3} \text{ or } \frac{CP \times \cos^2\theta \sin\theta}{H^2}$$







RATED INITIAL LUMENS

General Purpose		Reflector (R) Flood & Spot		Reflector (PAR) Flood & Spot	
100w. A-21	1640	30w. R-20	200	75w. PAR-38	675
150w. A-23	2700	75w. R-30	750	150w. PAR-38	1730
200w. A-23	4000	150w. R-40	1950	200w. PAR-46	2250
300w. PS-35	5750	300w. R-40	3700	300w. PAR-56	3840
500w. PS-35	10,500	500w. R-40	6500	500w. PAR-64	6500

MAINTENANCE FACTORS	GENERAL PURPOSE	REFLECTOR (R & PAR)
	100-150w. Good .80; Medium .70; Poor .65	30w.-150w. Good .75; Medium .70; Poor .65
	200-500w. Good .75; Medium .70; Poor .65	200w.-500w. Good .80; Medium .75; Poor .70

Multiplying Factors for 30% Floor — (10% = 1.00)

Ceiling	80%		50%	
Walls	50%	10%	50%	10%
Room Ratio				
0.6 (J)	1.03	1.01	1.02	1.00
0.8 (I)	1.04	1.01	1.03	1.01
1.0 (H)	1.05	1.02	1.04	1.01
1.25 (G)	1.06	1.02	1.04	1.02
1.50(F)	1.07	1.03	1.05	1.02
2.0(E)	1.09	1.05	1.05	1.03
2.5(D)	1.10	1.06	1.07	1.04
3.0(C)	1.12	1.08	1.08	1.04
4.0(B)	1.14	1.10	1.08	1.06
5.0(A)	1.15	1.11	1.09	1.07

design: Sybil Wilson

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